1999 Commercial Buildings Energy Consumption Survey Detailed Tables

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Table C1. Total Energy Consumption by Major Fuel, 1999

	All Buildings		Total Energy Consumption (trillion Btu)					
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	Primary Electricity (trillion Btu)
All Buildings	4,657	67,338	5,733	3,098	2,023	179	433	9,352
Building Floorspace (Square Feet)								
1,001 to 5,000	2,348	6,774	772	415	312	29	Q	1,254
5,001 to 10,000	1,110	8,238	608	283	292	Q	Q	853
10,001 to 25,000	708	11,153	743	370	319	24	Q	1,118
25,001 to 50,000	257	9,311	692	371	234	25	61	1,121
50,001 to 100,000	145	10,112	865	494	250	24	97	1,491
100,001 to 200,000	59	8,271	772	451	230	19	72	1,361
200,001 to 500,000	23	6,851	660	340	237	25	57	1,028
Over 500,000	7	6,628	621	373	149	16	84	1,127
Principal Building Activity								
Education	327	8,651	649	257	227	48	117	777
Food Sales	174	994	201	165	31	Q	Q	498
Food Service	349	1,851	447	216	216	Q	Q	653
Health Care	127	2,918	515	232	217	19	46	701
Inpatient	11	1,865	427	172	195	18	Q	520
Outpatient	116	1,053	88	60	22	Q	Q	181
Lodging	153	4,521	450	196	181	Q	68	591
Mercantile	667	10,398	724	521	186	Q	Q	1,573
Retail (Other Than Mall)	534	4,766	344	221	110	Q	Q	666
Enclosed and Strip Malls	133	5,631	380	301	76	Q	N	907
Office	739	12,044	1,089	767	219	29	74	2,314
Public Assembly	305	4,393	359	191	96	Q	59	577
Public Order and Safety	72	1,168	102	40	33	7	Q	122
Religious Worship	307	3,405	110	42	62	Q	Q	126
Service	478	3,388	421	138	260	18	Q	417
Warehouse and Storage	603	10,477	461	220	230	8	Q	664
Other	102	1,222	176	101	45	Q	Q	306
Vacant	253	1,908	31	10	19	Q	Q	31
Year Constructed								
1919 or Before	419	4,034	275	91	120	26	Q	275
1920 to 1945	499	6,445	461	184	195	22	60	556
1946 to 1959	763	9,127	674	310	256	33	76	934
1960 to 1969	665	10,866	975	468	372	36	100	1,413
1970 to 1979	774	11,840	1,044	621	326	29	69	1,875
1980 to 1989	846	13,931	1,214	755	391	21	47	2,280
1990 to 1999	690	11,094	1,090	669	364	13	Q	2,020
Floors								
One	2,879	26,800	2,003	1,174	750	48	Q	3,545
Two	1,168	16,985	1,330	707	530	39	Q	2,136
Three	420	8,928	733	355	274	39	66	1,071
Four to Nine	178	10,180	1,217	599	377	43	198	1,810
Ten or More	11	4,445	449	262	92	10	86	790
Census Region and Division								
Northeast	686	12,360	1,116	543	299	138	136	1,638
New England	208	3,735	279	132	59	73	Q	399
Middle Atlantic	479	8,625	837	411	240	65	121	1,239
Midwest	1,188	16,761	1,509	662	709	5	132	2,000
East North Central	782	11,205	1,009	429	497	Q	80	1,296
West North Central	406	5,556	500	233	212	2	52	704
South	1,762	23,485	1,961	1,247	618	29	67	3,766
South Atlantic	748	11,001	916	613	249	26	Q	1,851
East South Central	396	5,220	473	271	186	Q	Q	817
West South Central	618	7,264	573	364	183	1	Q	1,098
West	1,021	14,731	1,147	645	396	8	98	1,948
Mountain	315	4,579	356	175	145	1	Q	530
Pacific	705	10,152	791	470	252	Q	Q	1,418

Table C1. Total Energy Consumption by Major Fuel, 1999

	All Buildings		Total Energy Consumption (trillion Btu)					
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	Primary Electricity (trillion Btu)
Climate Zone: 45-Year Average								
Under 2,000 CDD and --								
More than 7,000 HDD	525	5,890	510	220	228	41	Q	665
5,500-7,000 HDD	986	17,083	1,535	671	642	62	160	2,027
4,000-5,499 HDD	1,085	16,243	1,545	790	520	69	166	2,385
Fewer than 4,000 HDD	1,134	16,333	1,291	827	425	Q	34	2,496
2,000 CDD or More and --								
Fewer than 4,000 HDD	926	11,788	853	589	208	2	Q	1,779
Workers (main shift)								
Fewer than 5	2,376	14,321	677	334	280	20	Q	1,009
5 to 9	807	6,325	465	217	194	23	Q	654
10 to 19	683	8,028	691	350	281	Q	Q	1,055
20 to 49	487	10,814	1,016	507	435	29	45	1,530
50 to 99	174	8,898	730	418	222	33	57	1,260
100 to 249	90	8,356	865	508	252	27	79	1,534
250 or More	39	10,595	1,289	765	359	28	138	2,309
Weekly Operating Hours								
39 or Fewer	978	6,596	164	68	82	11	Q	205
40 to 48	1,156	13,105	746	387	269	35	55	1,169
49 to 60	986	14,200	1,068	581	387	43	57	1,754
61 to 84	664	12,458	1,050	588	358	31	73	1,776
85 to 167	474	9,116	1,057	607	348	28	73	1,833
Open Continuously	398	11,863	1,648	866	577	32	173	2,614
Ownership and Occupancy								
Nongovernment Owned	4,135	54,994	4,565	2,534	1,659	121	250	7,651
Owner Occupied	2,801	37,785	3,340	1,807	1,202	105	226	5,455
Nonowner Occupied	1,099	15,596	1,207	720	447	16	Q	2,173
Unoccupied	236	1,613	17	Q	Q	Q	N	Q
Government Owned	521	12,343	1,169	563	364	58	184	1,701
Federal	63	1,797	218	123	37	3	55	370
State	83	3,391	376	160	114	6	96	484
Local	375	7,156	574	280	212	49	Q	846
Vacancy Status								
Completely Vacant	140	953	Q	Q	Q	N	N	Q
Mostly Vacant	113	956	Q	4	Q	Q	Q	13
Partially Vacant	697	15,520	1,049	648	306	24	71	1,955
Not At All Vacant	3,707	49,910	4,654	2,440	1,698	154	362	7,366
Number of Establishments								
One	3,528	43,343	4,047	2,021	1,542	136	347	6,102
2 to 5	688	10,582	761	429	273	26	33	1,294
6 to 10	114	3,574	304	202	86	Q	Q	611
11 to 20	48	3,260	251	184	50	10	Q	555
More than 20	27	4,811	350	253	60	4	33	764
Currently Unoccupied	251	1,769	21	9	12	Q	N	26
Energy Sources (more than one may apply)								
Electricity	4,395	65,716	5,733	3,098	2,023	179	433	9,352
Natural Gas	2,670	45,525	4,455	2,191	2,023	59	182	6,616
Fuel Oil	434	13,285	1,487	772	428	179	107	2,331
District Heat	117	5,891	905	359	108	Q	433	1,083
District Chilled Water	50	2,750	428	189	53	Q	185	571
Propane	451	6,290	430	262	Q	51	Q	791
Other	153	2,322	203	113	75	9	Q	341

Table C1. Total Energy Consumption by Major Fuel, 1999

	All Buildings		Total Energy Consumption (trillion Btu)					
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	Primary Electricity (trillion Btu)
Space-Heating Energy Sources (more than one may apply)								
Electricity	1,880	32,291	2,634	1,701	780	43	109	5,135
Natural Gas	2,380	37,902	3,554	1,736	1,764	24	Q	5,241
Fuel Oil	377	5,611	521	204	140	172	Q	617
District Heat	96	5,534	834	339	80	Q	412	1,022
Propane	307	2,728	119	99	Q	9	Q	299
Other	94	945	63	43	Q	Q	Q	130
Primary Space-Heating Energy Source								
Electricity	1,128	17,627	1,346	1,031	282	10	Q	3,114
Natural Gas	2,189	32,729	3,063	1,442	1,602	13	Q	4,353
Fuel Oil	302	3,719	271	101	17	153	Q	305
District Heat	77	5,077	759	308	48	1	402	928
Propane	282	2,107	73	72	Q	Q	N	216
Other	38	343	Q	Q	Q	Q	N	Q
Cooling Energy Sources (more than one may apply)								
Electricity	3,450	55,545	4,938	2,816	1,756	144	222	8,503
Natural Gas	142	1,914	212	107	102	Q	Q	323
District Chilled Water	50	2,750	428	189	53	Q	185	571
Water-Heating Energy Sources (more than one may apply)								
Electricity	1,546	24,171	1,835	1,290	445	47	54	3,896
Natural Gas	1,520	29,196	2,961	1,444	1,451	32	Q	4,358
Fuel Oil	110	2,218	233	86	53	92	Q	259
District Heat	62	4,182	677	255	78	3	341	769
Propane	130	1,371	87	73	Q	Q	Q	220
Cooking Energy Sources (more than one may apply)								
Electricity	437	13,733	1,520	931	462	40	87	2,811
Natural Gas	505	16,785	1,928	982	823	39	84	2,963
Propane	118	1,754	162	123	Q	28	Q	370
Energy End Uses (more than one may apply)								
Buildings with Space Heating	4,016	61,602	5,529	2,965	1,954	179	431	8,950
Buildings with Cooling	3,560	58,474	5,344	2,996	1,834	145	369	9,046
Buildings with Water Heating	3,239	56,115	5,262	2,844	1,864	163	392	8,585
Buildings with Cooking	857	24,681	2,679	1,504	941	86	149	4,540
Buildings with Manufacturing	151	3,126	277	149	114	7	Q	449
Buildings with Electricity Generation	172	11,882	1,494	836	470	48	139	2,525
Percent of Floorspace Heated								
Not Heated	641	5,736	205	133	Q	Q	Q	402
1 to 50	576	7,593	333	191	130	9	Q	576
51 to 99	627	10,745	979	557	344	20	57	1,683
100	2,813	43,264	4,216	2,216	1,480	150	371	6,691
Percent of Floorspace Cooled								
Not Cooled	1,097	8,864	389	101	189	34	Q	306
1 to 50	1,012	16,846	1,122	436	561	76	50	1,315
51 to 99	751	16,966	1,743	1,002	589	40	112	3,026
100	1,796	24,662	2,479	1,559	684	29	207	4,705

Table C1. Total Energy Consumption by Major Fuel, 1999

	All Buildings		Total Energy Consumption (trillion Btu)					
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	Primary Electricity (trillion Btu)
Percent Lit When Open								
Zero	34	173	Q	Q	Q	Q	N	Q
1 to 50	835	9,187	452	223	185	16	Q	672
51 to 99	1,228	20,665	1,993	1,005	760	69	159	3,034
100	2,096	34,233	3,255	1,853	1,062	94	246	5,594
Building Never Open/ Electricity Not Used	464	3,080	29	14	14	Q	N	41
Percent Lit When Closed								
Zero	2,174	20,771	1,170	587	458	47	78	1,772
1 to 50	1,688	30,950	2,604	1,462	879	96	167	4,413
51 to 100	143	2,160	310	183	108	Q	Q	553
Building Never Closed/ Electricity Not Used	652	13,457	1,649	866	578	32	173	2,614
Heating Equipment (more than one may apply)								
Heat Pumps	492	8,923	862	516	292	9	Q	1,557
Furnaces	1,460	14,449	1,082	475	566	33	Q	1,435
Individual Space Heaters	894	17,349	1,374	734	530	32	79	2,215
District Heat	96	5,534	834	339	80	Q	412	1,022
Boilers	581	19,522	1,911	912	841	142	Q	2,755
Packaged Heating Units	1,347	25,743	2,369	1,469	826	25	49	4,435
Other	185	4,073	387	229	134	9	Q	691
Cooling Equipment (more than one may apply)								
Residential-Type Central Air Conditioners	676	8,329	672	343	295	14	Q	1,037
Heat Pumps	485	9,147	871	521	291	16	Q	1,574
Individual Air Conditioners	799	14,276	1,196	544	486	82	84	1,642
District Chilled Water	50	2,750	428	189	53	Q	185	571
Central Chillers	130	12,909	1,598	902	522	40	135	2,723
Packaged Air Conditioning Units	1,953	36,527	3,390	1,995	1,193	71	131	6,024
Swamp Coolers	136	2,219	215	102	102	Q	Q	308
Other	49	1,312	130	82	40	Q	Q	247
Main Equipment Replaced Since 1995 (more than one may apply)								
Heating	984	13,220	1,085	623	431	17	Q	1,880
Cooling	1,085	17,390	1,535	864	557	49	65	2,609
Lighting Equipment Types (more than one may apply)								
Incandescent	2,193	38,156	3,441	1,852	1,214	97	278	5,591
Standard Fluorescent	3,778	60,344	5,400	2,939	1,874	169	418	8,872
Compact Fluorescent	607	20,666	2,162	1,197	677	62	227	3,613
High Intensity Discharge	430	19,223	1,903	1,023	676	57	148	3,088
Halogen	572	17,926	1,805	998	647	38	121	3,014
Other	58	1,004	117	59	Q	Q	Q	179
Water Heating Equipment								
Centralized System	2,472	35,579	3,368	1,710	1,258	120	279	5,164
Distributed System	566	10,899	872	533	278	20	Q	1,610
Combination of Centralized and Distributed System	200	9,637	1,023	600	328	23	72	1,811

Table C1. Total Energy Consumption by Major Fuel, 1999

	All Buildings		Total Energy Consumption (trillion Btu)					
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	Primary Electricity (trillion Btu)
Commercial Refrigeration Equipment (more than one may apply)								
Any Equipment	950	25,652	2,874	1,655	980	91	148	4,997
Walk-In Units	658	19,713	2,407	1,386	839	66	115	4,186
Cases or Cabinets	820	22,001	2,481	1,448	821	77	136	4,370
None	3,707	41,686	2,859	1,442	1,043	89	285	4,355
Personal Computers								
None	1,617	9,583	458	193	214	18	Q	584
1 to 4	1,636	13,853	1,078	556	447	32	Q	1,678
5 to 9	542	6,528	584	307	254	11	Q	927
10 to 19	403	7,514	626	329	229	29	Q	992
20 to 49	247	8,087	655	382	209	23	41	1,153
50 to 99	105	5,867	532	266	200	19	46	803
100 to 249	71	6,818	688	411	184	25	69	1,240
250 or More	36	9,088	1,113	654	286	22	151	1,974
Photocopiers								
None	2,825	21,631	1,522	743	644	51	84	2,242
One	1,114	12,928	1,037	577	362	26	Q	1,741
2 to 4	540	15,620	1,304	682	483	48	90	2,059
5 to 9	102	5,384	530	284	184	24	38	857
10 or More	75	11,774	1,341	813	350	30	148	2,453
Other Electronic Equipment (more than one may apply)								
Laser Printers	1,949	46,567	4,356	2,450	1,432	130	345	7,396
FAX Machines	2,807	54,764	5,044	2,817	1,706	154	367	8,505
Medical Diagnostic Equipment	86	2,493	468	211	205	16	Q	637
Energy-Related Space Functions (more than one may apply)								
Commercial Food Preparation	767	23,328	2,548	1,425	899	81	142	4,302
Activities with Large Amounts of Hot Water	698	21,793	2,539	1,234	1,020	74	212	3,724
Building Shell Conservation Features (more than one may apply)								
Multipaned Windows	2,130	38,193	3,583	1,929	1,275	113	266	5,823
Tinted, Reflective, or Shading Glass	1,283	29,915	2,835	1,716	845	57	217	5,180
HVAC Conservation Features (more than one may apply)								
Variable Air-Volume System	550	19,387	2,115	1,245	619	47	203	3,759
Economizer Cycle	567	21,256	2,387	1,369	748	42	228	4,133
HVAC Maintenance	2,786	53,395	5,064	2,781	1,706	165	413	8,395
Energy Management and Control System (EMCS)	460	21,613	2,391	1,343	704	54	290	4,055

Table C1. Total Energy Consumption by Major Fuel, 1999

	All Buildings		Total Energy Consumption (trillion Btu)					
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Site Electricity	Natural Gas	Fuel Oil	District Heat	Primary Electricity (trillion Btu)
Lighting Conservation Features (more than one may apply)								
Specular Reflectors	843	19,994	1,917	1,139	585	69	124	3,440
Electronic Ballasts	2,167	42,035	3,901	2,205	1,269	125	302	6,658
Skylights or Atriums	580	18,286	1,619	898	572	47	102	2,710

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Site electricity is the amount of electricity delivered to commercial buildings. Primary electricity, which is not included in the "Total of Major Fuels" category, is site electricity plus the conversion losses in the electric generation process at the utility plant. * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * HVAC=Heating, Ventilation, and Air Conditioning. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C2. Total Energy Expenditures by Major Fuel, 1999

	All Buildings		Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
All Buildings	4,657	67,338	81,552	66,424	10,609	956	3,564
Building Floorspace (Square Feet)							
1,001 to 5,000	2,348	6,774	12,355	10,262	1,802	197	Q
5,001 to 10,000	1,110	8,238	9,228	7,146	1,810	95	Q
10,001 to 25,000	708	11,153	10,873	8,663	1,813	145	Q
25,001 to 50,000	257	9,311	10,090	8,188	1,274	131	496
50,001 to 100,000	145	10,112	12,057	10,023	1,253	114	667
100,001 to 200,000	59	8,271	10,344	8,555	1,104	87	598
200,001 to 500,000	23	6,851	8,015	6,432	958	120	504
Over 500,000	7	6,628	8,592	7,155	594	68	775
Principal Building Activity							
Education	327	8,651	8,018	5,820	1,111	208	879
Food Sales	174	994	3,587	3,359	195	Q	Q
Food Service	349	1,851	6,380	5,082	1,185	Q	Q
Health Care	127	2,918	5,653	4,268	881	87	Q
Inpatient	11	1,865	4,151	2,948	757	79	Q
Outpatient	116	1,053	1,503	1,320	124	Q	Q
Lodging	153	4,521	5,716	4,266	943	26	482
Mercantile	667	10,398	13,085	11,851	1,126	Q	Q
Retail (Other Than Mall)	534	4,766	5,922	5,166	670	Q	Q
Enclosed and Strip Malls	133	5,631	7,164	6,685	456	Q	N
Office	739	12,044	17,775	15,683	1,215	168	709
Public Assembly	305	4,393	5,096	3,983	560	Q	487
Public Order and Safety	72	1,168	1,222	805	176	Q	Q
Religious Worship	307	3,405	1,494	1,041	409	Q	Q
Service	478	3,388	4,639	3,108	1,371	102	Q
Warehouse and Storage	603	10,477	6,029	4,829	1,124	55	Q
Other	102	1,222	2,498	2,063	224	Q	Q
Vacant	253	1,908	361	265	89	Q	Q
Year Constructed							
1919 or Before	419	4,034	3,271	2,170	684	149	268
1920 to 1945	499	6,445	5,797	4,174	968	119	535
1946 to 1959	763	9,127	9,216	6,989	1,390	184	652
1960 to 1969	665	10,866	13,237	10,250	1,986	185	815
1970 to 1979	774	11,840	15,858	13,461	1,726	132	538
1980 to 1989	846	13,931	18,342	15,777	2,033	113	Q
1990 to 1999	690	11,094	15,832	13,604	1,820	73	Q
Floors							
One	2,879	26,800	30,962	26,384	4,075	288	Q
Two	1,168	16,985	19,465	15,870	2,936	214	Q
Three	420	8,928	9,483	7,284	1,460	195	544
Four to Nine	178	10,180	14,974	11,438	1,766	216	1,553
Ten or More	11	4,445	6,670	5,448	372	43	806
Census Region and Division							
Northeast	686	12,360	18,996	15,133	1,895	704	1,264
New England	208	3,735	4,658	3,783	403	362	Q
Middle Atlantic	479	8,625	14,338	11,351	1,491	342	1,154
Midwest	1,188	16,761	17,258	12,933	3,277	27	1,021
East North Central	782	11,205	11,682	8,798	2,252	13	618
West North Central	406	5,556	5,577	4,135	1,024	14	Q
South	1,762	23,485	27,303	23,275	3,294	180	554
South Atlantic	748	11,001	13,771	11,968	1,397	157	Q
East South Central	396	5,220	5,943	4,830	999	Q	Q
West South Central	618	7,264	7,590	6,476	898	5	Q
West	1,021	14,731	17,995	15,083	2,144	45	724
Mountain	315	4,579	4,338	3,365	739	8	Q
Pacific	705	10,152	13,657	11,718	1,405	Q	Q

Table C2. Total Energy Expenditures by Major Fuel, 1999

	All Buildings		Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
Climate Zone: 45-Year Average							
Under 2,000 CDD and --							
More than 7,000 HDD	525	5,890	6,009	4,505	1,125	206	Q
5,500-7,000 HDD	986	17,083	19,809	15,163	3,108	319	1,219
4,000-5,499 HDD	1,085	16,243	21,900	17,164	2,874	369	1,492
Fewer than 4,000 HDD	1,134	16,333	20,548	17,847	2,341	Q	314
2,000 CDD or More and --							
Fewer than 4,000 HDD	926	11,788	13,286	11,745	1,160	15	Q
Workers (main shift)							
Fewer than 5	2,376	14,321	10,245	8,046	1,747	132	Q
5 to 9	807	6,325	6,930	5,462	1,111	147	Q
10 to 19	683	8,028	10,426	8,439	1,509	Q	Q
20 to 49	487	10,814	13,937	11,068	2,386	153	Q
50 to 99	174	8,898	10,937	9,122	1,177	153	485
100 to 249	90	8,356	11,684	9,683	1,210	120	671
250 or More	39	10,595	17,393	14,604	1,468	136	1,185
Weekly Operating Hours							
39 or Fewer	978	6,596	2,316	1,717	502	68	Q
40 to 48	1,156	13,105	10,960	8,799	1,480	183	Q
49 to 60	986	14,200	15,814	12,980	2,123	245	466
61 to 84	664	12,458	15,896	13,082	2,045	164	605
85 to 167	474	9,116	15,569	13,107	1,810	136	516
Open Continuously	398	11,863	20,997	16,739	2,650	160	1,449
Ownership and Occupancy							
Nongovernment Owned	4,135	54,994	66,801	55,086	8,913	693	2,110
Owner Occupied	2,801	37,785	47,362	38,540	6,383	591	1,848
Nonowner Occupied	1,099	15,596	19,195	16,358	2,474	101	Q
Unoccupied	236	1,613	244	Q	Q	Q	N
Government Owned	521	12,343	14,751	11,338	1,696	263	1,454
Federal	63	1,797	2,707	2,195	159	17	336
State	83	3,391	4,516	3,189	470	29	828
Local	375	7,156	7,529	5,955	1,067	217	Q
Vacancy Status							
Completely Vacant	140	953	Q	Q	Q	N	N
Mostly Vacant	113	956	191	121	Q	Q	Q
Partially Vacant	697	15,520	16,227	13,761	1,600	128	737
Not At All Vacant	3,707	49,910	64,965	52,397	8,920	823	2,824
Number of Establishments							
One	3,528	43,343	54,521	43,175	7,939	727	2,680
2 to 5	688	10,582	11,256	9,297	1,524	137	Q
6 to 10	114	3,574	5,148	4,492	511	18	Q
11 to 20	48	3,260	4,247	3,846	275	47	Q
More than 20	27	4,811	6,103	5,402	297	25	379
Currently Unoccupied	251	1,769	278	211	64	Q	N
Energy Sources (more than one may apply)							
Electricity	4,395	65,716	81,548	66,424	10,607	953	3,564
Natural Gas	2,670	45,525	58,798	46,431	10,609	297	1,461
Fuel Oil	434	13,285	18,854	15,165	1,786	956	948
District Heat	117	5,891	10,915	6,841	488	23	3,564
District Chilled Water	50	2,750	4,807	3,224	226	Q	1,349
Propane	451	6,290	7,054	6,286	433	272	Q
Other	153	2,322	3,001	2,512	381	55	Q

Table C2. Total Energy Expenditures by Major Fuel, 1999

	All Buildings		Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
Space-Heating Energy Sources (more than one may apply)							
Electricity	1,880	32,291	40,678	35,332	4,167	244	934
Natural Gas	2,380	37,902	46,471	36,918	9,122	130	Q
Fuel Oil	377	5,611	6,565	5,013	610	909	Q
District Heat	96	5,534	10,208	6,432	385	Q	3,371
Propane	307	2,728	2,690	2,583	Q	46	Q
Other	94	945	1,016	891	Q	Q	Q
Primary Space-Heating Energy Source							
Electricity	1,128	17,627	23,523	21,622	1,608	Q	Q
Natural Gas	2,189	32,729	38,998	30,654	8,225	71	Q
Fuel Oil	302	3,719	3,839	2,923	108	802	Q
District Heat	77	5,077	9,287	5,784	220	7	3,277
Propane	282	2,107	1,966	1,960	Q	Q	N
Other	38	343	Q	Q	Q	Q	N
Cooling Energy Sources (more than one may apply)							
Electricity	3,450	55,545	72,249	60,281	9,247	752	1,968
Natural Gas	142	1,914	3,034	2,487	518	Q	Q
District Chilled Water	50	2,750	4,807	3,224	226	Q	1,349
Water-Heating Energy Sources (more than one may apply)							
Electricity	1,546	24,171	30,746	27,581	2,441	262	462
Natural Gas	1,520	29,196	38,398	30,391	7,556	166	Q
Fuel Oil	110	2,218	2,747	2,089	188	454	Q
District Heat	62	4,182	7,911	4,710	319	14	2,868
Propane	130	1,371	2,147	2,075	Q	Q	Q
Cooking Energy Sources (more than one may apply)							
Electricity	437	13,733	21,428	18,252	2,274	183	719
Natural Gas	505	16,785	25,164	20,171	4,019	183	790
Propane	118	1,754	3,241	3,038	Q	140	Q
Energy End Uses (more than one may apply)							
Buildings with Space Heating	4,016	61,602	77,862	63,164	10,189	954	3,556
Buildings with Cooling	3,560	58,474	77,278	63,845	9,647	758	3,028
Buildings with Water Heating	3,239	56,115	74,711	60,875	9,705	849	3,283
Buildings with Cooking	857	24,681	37,233	30,873	4,672	409	1,279
Buildings with Manufacturing	151	3,126	3,811	3,060	634	39	Q
Buildings with Electricity Generation	172	11,882	18,991	15,509	2,080	243	1,159
Percent of Floorspace Heated							
Not Heated	641	5,736	3,690	3,261	Q	Q	Q
1 to 50	576	7,593	5,293	4,533	679	49	Q
51 to 99	627	10,745	13,939	11,384	1,896	125	534
100	2,813	43,264	58,630	47,247	7,614	779	2,990
Percent of Floorspace Cooled							
Not Cooled	1,097	8,864	4,275	2,579	962	198	Q
1 to 50	1,012	16,846	14,072	10,363	2,897	397	Q
51 to 99	751	16,966	24,422	20,141	3,056	195	1,031
100	1,796	24,662	38,784	33,342	3,694	166	1,582

Table C2. Total Energy Expenditures by Major Fuel, 1999

	All Buildings		Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
Percent Lit When Open							
Zero	34	173	Q	Q	Q	Q	N
1 to 50	835	9,187	6,822	5,396	1,081	93	Q
51 to 99	1,228	20,665	27,188	21,574	4,085	355	1,173
100	2,096	34,233	47,058	39,065	5,354	502	2,138
Building Never Open/ Electricity Not Used	464	3,080	403	319	79	Q	N
Percent Lit When Closed							
Zero	2,174	20,771	17,327	14,034	2,565	264	464
1 to 50	1,688	30,950	38,650	31,794	4,845	501	1,510
51 to 100	143	2,160	4,575	3,857	548	Q	Q
Building Never Closed/ Electricity Not Used	652	13,457	21,001	16,739	2,651	163	1,449
Heating Equipment (more than one may apply)							
Heat Pumps	492	8,923	12,150	10,243	1,481	51	Q
Furnaces	1,460	14,449	14,052	10,722	3,054	212	Q
Individual Space Heaters	894	17,349	18,689	15,110	2,712	170	697
District Heat	96	5,534	10,208	6,432	385	Q	3,371
Boilers	581	19,522	23,671	18,848	3,974	705	Q
Packaged Heating Units	1,347	25,743	35,951	31,069	4,291	132	459
Other	185	4,073	5,151	4,400	559	48	Q
Cooling Equipment (more than one may apply)							
Residential-Type Central Air Conditioners	676	8,329	8,891	7,113	1,538	82	Q
Heat Pumps	485	9,147	12,330	10,416	1,477	89	Q
Individual Air Conditioners	799	14,276	15,537	11,793	2,519	421	803
District Chilled Water	50	2,750	4,807	3,224	226	Q	1,349
Central Chillers	130	12,909	20,759	17,041	2,301	190	1,227
Packaged Air Conditioning Units	1,953	36,527	50,789	43,059	6,277	360	1,094
Swamp Coolers	136	2,219	2,832	2,238	518	Q	Q
Other	49	1,312	1,821	1,580	172	Q	Q
Main Equipment Replaced Since 1995 (more than one may apply)							
Heating	984	13,220	16,100	13,421	2,431	102	Q
Cooling	1,085	17,390	22,162	18,381	2,949	249	583
Lighting Equipment Types (more than one may apply)							
Incandescent	2,193	38,156	48,515	39,345	6,273	493	2,404
Standard Fluorescent	3,778	60,344	76,738	62,616	9,788	891	3,443
Compact Fluorescent	607	20,666	29,689	24,269	3,255	313	1,852
High Intensity Discharge	430	19,223	24,549	19,743	3,203	269	1,334
Halogen	572	17,926	25,096	20,656	3,246	190	1,005
Other	58	1,004	1,506	1,235	Q	Q	Q
Water Heating Equipment							
Centralized System	2,472	35,579	47,665	38,010	6,762	631	2,261
Distributed System	566	10,899	13,260	11,383	1,409	111	Q
Combination of Centralized and Distributed System	200	9,637	13,786	11,481	1,533	108	665

Table C2. Total Energy Expenditures by Major Fuel, 1999

	All Buildings		Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Total of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
Commercial Refrigeration Equipment (more than one may apply)							
Any Equipment	950	25,652	40,917	34,282	4,858	442	1,336
Walk-In Units	658	19,713	33,935	28,489	4,086	313	1,048
Cases or Cabinets	820	22,001	35,710	30,056	4,052	365	1,237
None	3,707	41,686	40,635	32,142	5,751	514	2,228
Personal Computers							
None	1,617	9,583	6,478	4,762	1,291	119	Q
1 to 4	1,636	13,853	16,059	13,009	2,502	198	Q
5 to 9	542	6,528	8,451	6,947	1,327	68	Q
10 to 19	403	7,514	9,636	7,747	1,374	158	Q
20 to 49	247	8,087	9,782	8,162	1,171	109	341
50 to 99	105	5,867	6,928	5,601	903	98	326
100 to 249	71	6,818	9,137	7,675	840	105	516
250 or More	36	9,088	15,083	12,521	1,202	101	1,260
Photocopiers							
None	2,825	21,631	22,207	17,615	3,624	321	647
One	1,114	12,928	15,654	12,840	2,079	144	Q
2 to 4	540	15,620	17,906	14,526	2,514	240	626
5 to 9	102	5,384	6,938	5,626	852	117	343
10 or More	75	11,774	18,847	15,816	1,540	134	1,357
Other Electronic Equipment (more than one may apply)							
Laser Printers	1,949	46,567	61,755	51,039	7,229	662	2,826
FAX Machines	2,807	54,764	72,276	59,661	8,864	798	2,954
Medical Diagnostic Equipment	86	2,493	4,977	3,775	813	69	Q
Energy-Related Space Functions (more than one may apply)							
Commercial Food Preparation	767	23,328	35,213	29,173	4,443	383	1,214
Activities with Large Amounts of Hot Water	698	21,793	32,545	25,383	4,972	353	1,838
Building Shell Conservation Features (more than one may apply)							
Multipaned Windows	2,130	38,193	49,189	39,911	6,557	585	2,136
Tinted, Reflective, or Shading Glass	1,283	29,915	41,475	35,125	4,359	272	1,718
HVAC Conservation Features (more than one may apply)							
Variable Air-Volume System	550	19,387	29,233	24,379	2,946	230	1,677
Economizer Cycle	567	21,256	33,194	27,641	3,563	194	1,795
HVAC Maintenance	2,786	53,395	71,785	58,705	8,812	861	3,406
Energy Management and Control System (EMCS)	460	21,613	31,814	26,143	3,177	246	2,248
Lighting Conservation Features (more than one may apply)							
Specular Reflectors	843	19,994	28,083	23,678	3,000	350	1,054
Electronic Ballasts	2,167	42,035	55,999	46,324	6,436	633	2,606
Skylights or Atriums	580	18,286	21,710	17,867	2,796	223	824

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * HVAC=Heating, Ventilation, and Air Conditioning. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels, 1999

	All Buildings			Sum of Major Fuel Consumption			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)
All Buildings	4,657	67,338	14.5	5,733	1,231	85.1	70.0
Building Floorspace (Square Feet)							
1,001 to 5,000	2,348	6,774	2.9	772	329	114.0	69.4
5,001 to 10,000	1,110	8,238	7.4	608	548	73.8	55.4
10,001 to 25,000	708	11,153	15.7	743	1,049	66.6	65.3
25,001 to 50,000	257	9,311	36.2	692	2,693	74.3	74.9
50,001 to 100,000	145	10,112	69.9	865	5,985	85.6	67.7
100,001 to 200,000	59	8,271	139.4	772	13,008	93.3	87.1
200,001 to 500,000	23	6,851	296.3	660	28,531	96.3	75.0
Over 500,000	7	6,628	929.0	621	87,102	93.8	71.4
Principal Building Activity							
Education	327	8,651	26.4	649	1,982	75.0	72.7
Food Sales	174	994	5.7	201	1,156	202.2	205.1
Food Service	349	1,851	5.3	447	1,280	241.2	110.8
Health Care	127	2,918	22.9	515	4,047	176.4	82.8
Inpatient	11	1,865	168.2	427	38,499	228.9	127.4
Outpatient	116	1,053	9.1	88	755	83.3	30.6
Lodging	153	4,521	29.5	450	2,938	99.5	190.9
Mercantile	667	10,398	15.6	724	1,085	69.6	63.6
Retail (Other Than Mall)	534	4,766	8.9	344	644	72.1	73.7
Enclosed and Strip Malls	133	5,631	42.2	380	2,848	67.5	56.6
Office	739	12,044	16.3	1,089	1,475	90.5	37.6
Public Assembly	305	4,393	14.4	359	1,177	81.7	114.1
Public Order and Safety	72	1,168	16.2	102	1,407	86.9	59.6
Religious Worship	307	3,405	11.1	110	357	32.2	66.3
Service	478	3,388	7.1	421	881	124.4	92.5
Warehouse and Storage	603	10,477	17.4	461	764	44.0	74.2
Other	102	1,222	12.0	176	1,729	144.0	121.1
Vacant	253	1,908	7.6	31	121	16.0	Q
Year Constructed							
1919 or Before	419	4,034	9.6	275	656	68.1	70.3
1920 to 1945	499	6,445	12.9	461	923	71.5	77.8
1946 to 1959	763	9,127	12.0	674	884	73.9	68.6
1960 to 1969	665	10,866	16.3	975	1,465	89.7	75.7
1970 to 1979	774	11,840	15.3	1,044	1,349	88.2	65.9
1980 to 1989	846	13,931	16.5	1,214	1,435	87.2	61.2
1990 to 1999	690	11,094	16.1	1,090	1,579	98.3	80.0
Floors							
One	2,879	26,800	9.3	2,003	696	74.7	67.0
Two	1,168	16,985	14.5	1,330	1,139	78.3	71.0
Three	420	8,928	21.3	733	1,746	82.1	76.8
Four to Nine	178	10,180	57.2	1,217	6,845	119.6	80.8
Ten or More	11	4,445	386.9	449	39,120	101.1	52.4
Census Region and Division							
Northeast	686	12,360	18.0	1,116	1,626	90.3	77.5
New England	208	3,735	18.0	279	1,342	74.6	71.7
Middle Atlantic	479	8,625	18.0	837	1,749	97.1	79.6
Midwest	1,188	16,761	14.1	1,509	1,270	90.0	82.5
East North Central	782	11,205	14.3	1,009	1,291	90.1	86.5
West North Central	406	5,556	13.7	500	1,231	89.9	75.6
South	1,762	23,485	13.3	1,961	1,113	83.5	67.2
South Atlantic	748	11,001	14.7	916	1,225	83.3	65.2
East South Central	396	5,220	13.2	473	1,194	90.5	80.0
West South Central	618	7,264	11.8	573	927	78.9	62.1
West	1,021	14,731	14.4	1,147	1,124	77.9	57.4
Mountain	315	4,579	14.5	356	1,130	77.8	68.5
Pacific	705	10,152	14.4	791	1,122	77.9	53.5

Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels, 1999

	All Buildings			Sum of Major Fuel Consumption			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)
Climate Zone: 45-Year Average							
Under 2,000 CDD and --							
More than 7,000 HDD	525	5,890	11.2	510	971	86.6	87.1
5,500-7,000 HDD	986	17,083	17.3	1,535	1,557	89.8	83.8
4,000-5,499 HDD	1,085	16,243	15.0	1,545	1,423	95.1	69.8
Fewer than 4,000 HDD	1,134	16,333	14.4	1,291	1,139	79.1	61.1
2,000 CDD or More and --							
Fewer than 4,000 HDD	926	11,788	12.7	853	920	72.3	59.2
Workers (main shift)							
Fewer than 5	2,376	14,321	6.0	677	285	47.3	159.7
5 to 9	807	6,325	7.8	465	576	73.5	87.5
10 to 19	683	8,028	11.8	691	1,012	86.1	80.5
20 to 49	487	10,814	22.2	1,016	2,085	93.9	72.1
50 to 99	174	8,898	51.1	730	4,195	82.0	63.9
100 to 249	90	8,356	92.4	865	9,560	103.5	68.6
250 or More	39	10,595	270.0	1,289	32,847	121.7	50.4
Weekly Operating Hours							
39 or Fewer	978	6,596	6.7	164	168	24.9	46.7
40 to 48	1,156	13,105	11.3	746	646	57.0	47.8
49 to 60	986	14,200	14.4	1,068	1,083	75.2	51.6
61 to 84	664	12,458	18.7	1,050	1,581	84.3	65.0
85 to 167	474	9,116	19.2	1,057	2,229	115.9	97.9
Open Continuously	398	11,863	29.8	1,648	4,136	138.9	109.4
Ownership and Occupancy							
Nongovernment Owned	4,135	54,994	13.3	4,565	1,104	83.0	67.3
Owner Occupied	2,801	37,785	13.5	3,340	1,193	88.4	71.7
Nonowner Occupied	1,099	15,596	14.2	1,207	1,098	77.4	56.8
Unoccupied	236	1,613	6.8	17	74	10.8	.
Government Owned	521	12,343	23.7	1,169	2,242	94.7	83.1
Federal	63	1,797	28.5	218	3,457	121.3	75.7
State	83	3,391	40.7	376	4,522	111.0	105.5
Local	375	7,156	19.1	574	1,531	80.3	75.4
Vacancy Status							
Completely Vacant	140	953	6.8	Q	Q	Q	.
Mostly Vacant	113	956	8.5	Q	Q	Q	Q
Partially Vacant	697	15,520	22.3	1,049	1,505	67.6	51.1
Not At All Vacant	3,707	49,910	13.5	4,654	1,255	93.2	76.2
Number of Establishments							
One	3,528	43,343	12.3	4,047	1,147	93.4	83.1
2 to 5	688	10,582	15.4	761	1,105	71.9	61.5
6 to 10	114	3,574	31.4	304	2,669	85.0	46.1
11 to 20	48	3,260	68.0	251	5,240	77.1	42.1
More than 20	27	4,811	175.2	350	12,732	72.7	42.4
Currently Unoccupied	251	1,769	7.0	21	83	11.7	.
Energy Sources (more than one may apply)							
Electricity	4,395	65,716	15.0	5,733	1,304	87.2	70.1
Natural Gas	2,670	45,525	17.1	4,455	1,669	97.9	79.2
Fuel Oil	434	13,285	30.6	1,487	3,426	111.9	75.9
District Heat	117	5,891	50.2	905	7,707	153.6	104.5
District Chilled Water	50	2,750	55.4	428	8,630	155.7	92.4
Propane	451	6,290	14.0	430	953	68.3	67.7
Other	153	2,322	15.2	203	1,330	87.4	59.7

Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels, 1999

	All Buildings			Sum of Major Fuel Consumption			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)
Space-Heating Energy Sources (more than one may apply)							
Electricity	1,880	32,291	17.2	2,634	1,401	81.6	60.9
Natural Gas	2,380	37,902	15.9	3,554	1,493	93.8	77.3
Fuel Oil	377	5,611	14.9	521	1,383	92.8	79.6
District Heat	96	5,534	57.7	834	8,693	150.7	102.8
Propane	307	2,728	8.9	119	387	43.5	48.9
Other	94	945	10.0	63	667	66.5	49.4
Primary Space-Heating Energy Source							
Electricity	1,128	17,627	15.6	1,346	1,193	76.4	52.9
Natural Gas	2,189	32,729	15.0	3,063	1,399	93.6	78.2
Fuel Oil	302	3,719	12.3	271	898	73.0	63.9
District Heat	77	5,077	66.0	759	9,867	149.4	108.2
Propane	282	2,107	7.5	73	258	34.4	38.1
Other	38	343	9.1	Q	Q	Q	50.5
Cooling Energy Sources (more than one may apply)							
Electricity	3,450	55,545	16.1	4,938	1,431	88.9	67.9
Natural Gas	142	1,914	13.5	212	1,497	111.0	74.6
District Chilled Water	50	2,750	55.4	428	8,630	155.7	92.4
Water-Heating Energy Sources (more than one may apply)							
Electricity	1,546	24,171	15.6	1,835	1,187	75.9	54.8
Natural Gas	1,520	29,196	19.2	2,961	1,948	101.4	82.4
Fuel Oil	110	2,218	20.2	233	2,123	104.9	80.0
District Heat	62	4,182	67.5	677	10,918	161.9	115.3
Propane	130	1,371	10.5	87	670	63.7	59.7
Cooking Energy Sources (more than one may apply)							
Electricity	437	13,733	31.4	1,520	3,476	110.7	82.8
Natural Gas	505	16,785	33.2	1,928	3,817	114.8	90.3
Propane	118	1,754	14.9	162	1,381	92.6	74.3
Energy End Uses (more than one may apply)							
Buildings with Space Heating	4,016	61,602	15.3	5,529	1,377	89.7	70.8
Buildings with Cooling	3,560	58,474	16.4	5,344	1,501	91.4	69.1
Buildings with Water Heating	3,239	56,115	17.3	5,262	1,625	93.8	71.7
Buildings with Cooking	857	24,681	28.8	2,679	3,124	108.5	84.8
Buildings with Manufacturing	151	3,126	20.7	277	1,834	88.7	63.7
Buildings with Electricity Generation	172	11,882	69.3	1,494	8,706	125.7	79.0
Percent of Floorspace Heated							
Not Heated	641	5,736	8.9	205	319	35.7	54.3
1 to 50	576	7,593	13.2	333	578	43.8	63.5
51 to 99	627	10,745	17.1	979	1,563	91.1	75.0
100	2,813	43,264	15.4	4,216	1,499	97.5	70.5
Percent of Floorspace Cooled							
Not Cooled	1,097	8,864	8.1	389	355	43.9	86.8
1 to 50	1,012	16,846	16.6	1,122	1,108	66.6	79.3
51 to 99	751	16,966	22.6	1,743	2,320	102.7	73.1
100	1,796	24,662	13.7	2,479	1,381	100.5	62.9

Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels, 1999

	All Buildings			Sum of Major Fuel Consumption			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)
Percent Lit When Open							
Zero	34	173	5.1	Q	Q	Q	Q
1 to 50	835	9,187	11.0	452	541	49.2	91.9
51 to 99	1,228	20,665	16.8	1,993	1,622	96.4	69.5
100	2,096	34,233	16.3	3,255	1,553	95.1	67.9
Building Never Open/ Electricity Not Used	464	3,080	6.6	29	62	9.3	Q
Percent Lit When Closed							
Zero	2,174	20,771	9.6	1,170	538	56.3	54.0
1 to 50	1,688	30,950	18.3	2,604	1,543	84.1	62.1
51 to 100	143	2,160	15.1	310	2,163	143.7	100.2
Building Never Closed/ Electricity Not Used	652	13,457	20.7	1,649	2,530	122.5	108.9
Heating Equipment (more than one may apply)							
Heat Pumps	492	8,923	18.1	862	1,752	96.6	68.3
Furnaces	1,460	14,449	9.9	1,082	741	74.9	68.3
Individual Space Heaters	894	17,349	19.4	1,374	1,538	79.2	71.8
District Heat	96	5,534	57.7	834	8,693	150.7	102.8
Boilers	581	19,522	33.6	1,911	3,289	97.9	78.4
Packaged Heating Units	1,347	25,743	19.1	2,369	1,759	92.0	73.5
Other	185	4,073	22.1	387	2,094	94.9	55.2
Cooling Equipment (more than one may apply)							
Residential-Type Central Air Conditioners	676	8,329	12.3	672	993	80.6	66.3
Heat Pumps	485	9,147	18.8	871	1,794	95.2	64.7
Individual Air Conditioners	799	14,276	17.9	1,196	1,497	83.8	71.8
District Chilled Water	50	2,750	55.4	428	8,630	155.7	92.4
Central Chillers	130	12,909	99.7	1,598	12,341	123.8	74.0
Packaged Air Conditioning Units	1,953	36,527	18.7	3,390	1,736	92.8	70.2
Swamp Coolers	136	2,219	16.3	215	1,582	96.9	88.7
Other	49	1,312	26.7	130	2,640	99.0	70.6
Main Equipment Replaced Since 1995 (more than one may apply)							
Heating	984	13,220	13.4	1,085	1,102	82.0	64.1
Cooling	1,085	17,390	16.0	1,535	1,415	88.3	66.3
Lighting Equipment Types (more than one may apply)							
Incandescent	2,193	38,156	17.4	3,441	1,569	90.2	69.3
Standard Fluorescent	3,778	60,344	16.0	5,400	1,430	89.5	69.4
Compact Fluorescent	607	20,666	34.1	2,162	3,564	104.6	71.9
High Intensity Discharge	430	19,223	44.8	1,903	4,430	99.0	87.9
Halogen	572	17,926	31.3	1,805	3,153	100.7	70.3
Other	58	1,004	17.5	117	2,033	116.5	83.9
Water Heating Equipment							
Centralized System	2,472	35,579	14.4	3,368	1,362	94.6	74.6
Distributed System	566	10,899	19.3	872	1,540	80.0	60.8
Combination of Centralized and Distributed System	200	9,637	48.1	1,023	5,108	106.1	73.6

Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels, 1999

	All Buildings			Sum of Major Fuel Consumption			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)
Commercial Refrigeration Equipment (more than one may apply)							
Any Equipment	950	25,652	27.0	2,874	3,025	112.0	85.8
Walk-In Units	658	19,713	29.9	2,407	3,656	122.1	92.3
Cases or Cabinets	820	22,001	26.8	2,481	3,026	112.8	84.4
None	3,707	41,686	11.2	2,859	771	68.6	59.1
Personal Computers							
None	1,617	9,583	5.9	458	283	47.8	95.7
1 to 4	1,636	13,853	8.5	1,078	659	77.8	84.8
5 to 9	542	6,528	12.0	584	1,078	89.5	78.1
10 to 19	403	7,514	18.7	626	1,554	83.3	68.0
20 to 49	247	8,087	32.7	655	2,649	81.0	67.7
50 to 99	105	5,867	55.9	532	5,064	90.6	73.2
100 to 249	71	6,818	96.0	688	9,687	100.9	71.9
250 or More	36	9,088	252.4	1,113	30,907	122.5	52.6
Photocopiers							
None	2,825	21,631	7.7	1,522	539	70.3	80.5
One	1,114	12,928	11.6	1,037	932	80.2	80.0
2 to 4	540	15,620	28.9	1,304	2,413	83.5	77.7
5 to 9	102	5,384	52.6	530	5,180	98.5	64.5
10 or More	75	11,774	156.7	1,341	17,835	113.9	53.6
Other Electronic Equipment (more than one may apply)							
Laser Printers	1,949	46,567	23.9	4,356	2,235	93.5	65.0
FAX Machines	2,807	54,764	19.5	5,044	1,797	92.1	67.5
Medical Diagnostic Equipment	86	2,493	29.1	468	5,460	187.7	83.2
Energy-Related Space Functions (more than one may apply)							
Commercial Food Preparation	767	23,328	30.4	2,548	3,320	109.2	83.9
Activities with Large Amounts of Hot Water	698	21,793	31.2	2,539	3,638	116.5	98.2
Building Shell Conservation Features (more than one may apply)							
Multipaned Windows	2,130	38,193	17.9	3,583	1,683	93.8	71.8
Tinted, Reflective, or Shading Glass	1,283	29,915	23.3	2,835	2,209	94.8	65.7
HVAC Conservation Features (more than one may apply)							
Variable Air-Volume System	550	19,387	35.3	2,115	3,849	109.1	69.3
Economizer Cycle	567	21,256	37.5	2,387	4,210	112.3	72.5
HVAC Maintenance	2,786	53,395	19.2	5,064	1,818	94.8	71.0
Energy Management and Control System (EMCS)	460	21,613	47.0	2,391	5,196	110.7	75.3
Lighting Conservation Features (more than one may apply)							
Specular Reflectors	843	19,994	23.7	1,917	2,275	95.9	66.6
Electronic Ballasts	2,167	42,035	19.4	3,901	1,800	92.8	69.8
Skylights or Atriums	580	18,286	31.5	1,619	2,793	88.5	76.5

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * HVAC=Heating, Ventilation, and Air Conditioning. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C4. Expenditures for Sum of Major Fuels, 1999

	All Buildings			Sum of Major Fuel Expenditures			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)
All Buildings	4,657	67,338	14.5	81,552	17.5	1.21	14.22
Building Floorspace (Square Feet)							
1,001 to 5,000	2,348	6,774	2.9	12,355	5.3	1.82	15.99
5,001 to 10,000	1,110	8,238	7.4	9,228	8.3	1.12	15.17
10,001 to 25,000	708	11,153	15.7	10,873	15.4	0.97	14.64
25,001 to 50,000	257	9,311	36.2	10,090	39.3	1.08	14.58
50,001 to 100,000	145	10,112	69.9	12,057	83.4	1.19	13.93
100,001 to 200,000	59	8,271	139.4	10,344	174.3	1.25	13.40
200,001 to 500,000	23	6,851	296.3	8,015	346.6	1.17	12.15
Over 500,000	7	6,628	929.0	8,592	1204.3	1.30	13.83
Principal Building Activity							
Education	327	8,651	26.4	8,018	24.5	0.93	12.36
Food Sales	174	994	5.7	3,587	20.6	3.61	17.84
Food Service	349	1,851	5.3	6,380	18.3	3.45	14.29
Health Care	127	2,918	22.9	5,653	44.5	1.94	10.99
Inpatient	11	1,865	168.2	4,151	374.3	2.23	9.72
Outpatient	116	1,053	9.1	1,503	12.9	1.43	17.14
Lodging	153	4,521	29.5	5,716	37.3	1.26	12.71
Mercantile	667	10,398	15.6	13,085	19.6	1.26	18.08
Retail (Other Than Mall)	534	4,766	8.9	5,922	11.1	1.24	17.22
Enclosed and Strip Malls	133	5,631	42.2	7,164	53.7	1.27	18.85
Office	739	12,044	16.3	17,775	24.1	1.48	16.32
Public Assembly	305	4,393	14.4	5,096	16.7	1.16	14.19
Public Order and Safety	72	1,168	16.2	1,222	16.9	1.05	12.03
Religious Worship	307	3,405	11.1	1,494	4.9	0.44	13.61
Service	478	3,388	7.1	4,639	9.7	1.37	11.01
Warehouse and Storage	603	10,477	17.4	6,029	10.0	0.58	13.08
Other	102	1,222	12.0	2,498	24.5	2.05	14.20
Vacant	253	1,908	7.6	361	1.4	0.19	11.79
Year Constructed							
1919 or Before	419	4,034	9.6	3,271	7.8	0.81	11.90
1920 to 1945	499	6,445	12.9	5,797	11.6	0.90	12.58
1946 to 1959	763	9,127	12.0	9,216	12.1	1.01	13.67
1960 to 1969	665	10,866	16.3	13,237	19.9	1.22	13.58
1970 to 1979	774	11,840	15.3	15,858	20.5	1.34	15.18
1980 to 1989	846	13,931	16.5	18,342	21.7	1.32	15.11
1990 to 1999	690	11,094	16.1	15,832	22.9	1.43	14.52
Floors							
One	2,879	26,800	9.3	30,962	10.8	1.16	15.46
Two	1,168	16,985	14.5	19,465	16.7	1.15	14.63
Three	420	8,928	21.3	9,483	22.6	1.06	12.93
Four to Nine	178	10,180	57.2	14,974	84.2	1.47	12.30
Ten or More	11	4,445	386.9	6,670	580.5	1.50	14.84
Census Region and Division							
Northeast	686	12,360	18.0	18,996	27.7	1.54	17.02
New England	208	3,735	18.0	4,658	22.4	1.25	16.71
Middle Atlantic	479	8,625	18.0	14,338	30.0	1.66	17.13
Midwest	1,188	16,761	14.1	17,258	14.5	1.03	11.44
East North Central	782	11,205	14.3	11,682	14.9	1.04	11.58
West North Central	406	5,556	13.7	5,577	13.7	1.00	11.16
South	1,762	23,485	13.3	27,303	15.5	1.16	13.92
South Atlantic	748	11,001	14.7	13,771	18.4	1.25	15.03
East South Central	396	5,220	13.2	5,943	15.0	1.14	12.58
West South Central	618	7,264	11.8	7,590	12.3	1.04	13.25
West	1,021	14,731	14.4	17,995	17.6	1.22	15.69
Mountain	315	4,579	14.5	4,338	13.8	0.95	12.17
Pacific	705	10,152	14.4	13,657	19.4	1.35	17.27

Table C4. Expenditures for Sum of Major Fuels, 1999

	All Buildings			Sum of Major Fuel Expenditures			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)
Climate Zone: 45-Year Average							
Under 2,000 CDD and --							
More than 7,000 HDD	525	5,890	11.2	6,009	11.4	1.02	11.78
5,500-7,000 HDD	986	17,083	17.3	19,809	20.1	1.16	12.91
4,000-5,499 HDD	1,085	16,243	15.0	21,900	20.2	1.35	14.18
Fewer than 4,000 HDD	1,134	16,333	14.4	20,548	18.1	1.26	15.91
2,000 CDD or More and --							
Fewer than 4,000 HDD	926	11,788	12.7	13,286	14.3	1.13	15.58
Workers (main shift)							
Fewer than 5	2,376	14,321	6.0	10,245	4.3	0.72	15.12
5 to 9	807	6,325	7.8	6,930	8.6	1.10	14.91
10 to 19	683	8,028	11.8	10,426	15.3	1.30	15.08
20 to 49	487	10,814	22.2	13,937	28.6	1.29	13.72
50 to 99	174	8,898	51.1	10,937	62.9	1.23	14.99
100 to 249	90	8,356	92.4	11,684	129.1	1.40	13.51
250 or More	39	10,595	270.0	17,393	443.2	1.64	13.49
Weekly Operating Hours							
39 or Fewer	978	6,596	6.7	2,316	2.4	0.35	14.12
40 to 48	1,156	13,105	11.3	10,960	9.5	0.84	14.68
49 to 60	986	14,200	14.4	15,814	16.0	1.11	14.81
61 to 84	664	12,458	18.7	15,896	23.9	1.28	15.14
85 to 167	474	9,116	19.2	15,569	32.8	1.71	14.73
Open Continuously	398	11,863	29.8	20,997	52.7	1.77	12.74
Ownership and Occupancy							
Nongovernment Owned	4,135	54,994	13.3	66,801	16.2	1.21	14.63
Owner Occupied	2,801	37,785	13.5	47,362	16.9	1.25	14.18
Nonowner Occupied	1,099	15,596	14.2	19,195	17.5	1.23	15.90
Unoccupied	236	1,613	6.8	244	1.0	0.15	14.01
Government Owned	521	12,343	23.7	14,751	28.3	1.20	12.62
Federal	63	1,797	28.5	2,707	42.9	1.51	12.42
State	83	3,391	40.7	4,516	54.3	1.33	12.00
Local	375	7,156	19.1	7,529	20.1	1.05	13.11
Vacancy Status							
Completely Vacant	140	953	6.8	170	1.2	0.18	Q
Mostly Vacant	113	956	8.5	191	1.7	0.20	Q
Partially Vacant	697	15,520	22.3	16,227	23.3	1.05	15.47
Not At All Vacant	3,707	49,910	13.5	64,965	17.5	1.30	13.96
Number of Establishments							
One	3,528	43,343	12.3	54,521	15.5	1.26	13.47
2 to 5	688	10,582	15.4	11,256	16.3	1.06	14.79
6 to 10	114	3,574	31.4	5,148	45.3	1.44	16.96
11 to 20	48	3,260	68.0	4,247	88.6	1.30	16.90
More than 20	27	4,811	175.2	6,103	222.2	1.27	17.45
Currently Unoccupied	251	1,769	7.0	278	1.1	0.16	13.39
Energy Sources (more than one may apply)							
Electricity	4,395	65,716	15.0	81,548	18.6	1.24	14.23
Natural Gas	2,670	45,525	17.1	58,798	22.0	1.29	13.20
Fuel Oil	434	13,285	30.6	18,854	43.5	1.42	12.68
District Heat	117	5,891	50.2	10,915	93.0	1.85	12.07
District Chilled Water	50	2,750	55.4	4,807	96.8	1.75	11.22
Propane	451	6,290	14.0	7,054	15.6	1.12	16.41
Other	153	2,322	15.2	3,001	19.7	1.29	14.79

Table C4. Expenditures for Sum of Major Fuels, 1999

	All Buildings			Sum of Major Fuel Expenditures			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)
Space-Heating Energy Sources (more than one may apply)							
Electricity	1,880	32,291	17.2	40,678	21.6	1.26	15.44
Natural Gas	2,380	37,902	15.9	46,471	19.5	1.23	13.08
Fuel Oil	377	5,611	14.9	6,565	17.4	1.17	12.60
District Heat	96	5,534	57.7	10,208	106.4	1.84	12.24
Propane	307	2,728	8.9	2,690	8.8	0.99	22.67
Other	94	945	10.0	1,016	10.8	1.08	16.17
Primary Space-Heating Energy Source							
Electricity	1,128	17,627	15.6	23,523	20.8	1.33	17.48
Natural Gas	2,189	32,729	15.0	38,998	17.8	1.19	12.73
Fuel Oil	302	3,719	12.3	3,839	12.7	1.03	14.14
District Heat	77	5,077	66.0	9,287	120.8	1.83	12.24
Propane	282	2,107	7.5	1,966	7.0	0.93	27.09
Other	38	343	9.1	249	6.6	0.73	Q
Cooling Energy Sources (more than one may apply)							
Electricity	3,450	55,545	16.1	72,249	20.9	1.30	14.63
Natural Gas	142	1,914	13.5	3,034	21.4	1.59	14.29
District Chilled Water	50	2,750	55.4	4,807	96.8	1.75	11.22
Water-Heating Energy Sources (more than one may apply)							
Electricity	1,546	24,171	15.6	30,746	19.9	1.27	16.75
Natural Gas	1,520	29,196	19.2	38,398	25.3	1.32	12.97
Fuel Oil	110	2,218	20.2	2,747	25.1	1.24	11.82
District Heat	62	4,182	67.5	7,911	127.6	1.89	11.69
Propane	130	1,371	10.5	2,147	16.5	1.57	24.56
Cooking Energy Sources (more than one may apply)							
Electricity	437	13,733	31.4	21,428	49.0	1.56	14.10
Natural Gas	505	16,785	33.2	25,164	49.8	1.50	13.05
Propane	118	1,754	14.9	3,241	27.6	1.85	19.95
Energy End Uses (more than one may apply)							
Buildings with Space Heating	4,016	61,602	15.3	77,862	19.4	1.26	14.08
Buildings with Cooling	3,560	58,474	16.4	77,278	21.7	1.32	14.46
Buildings with Water Heating	3,239	56,115	17.3	74,711	23.1	1.33	14.20
Buildings with Cooking	857	24,681	28.8	37,233	43.4	1.51	13.90
Buildings with Manufacturing	151	3,126	20.7	3,811	25.2	1.22	13.74
Buildings with Electricity Generation	172	11,882	69.3	18,991	110.7	1.60	12.72
Percent of Floorspace Heated							
Not Heated	641	5,736	8.9	3,690	5.8	0.64	18.02
1 to 50	576	7,593	13.2	5,293	9.2	0.70	15.90
51 to 99	627	10,745	17.1	13,939	22.2	1.30	14.23
100	2,813	43,264	15.4	58,630	20.8	1.36	13.91
Percent of Floorspace Cooled							
Not Cooled	1,097	8,864	8.1	4,275	3.9	0.48	10.98
1 to 50	1,012	16,846	16.6	14,072	13.9	0.84	12.55
51 to 99	751	16,966	22.6	24,422	32.5	1.44	14.01
100	1,796	24,662	13.7	38,784	21.6	1.57	15.64

Table C4. Expenditures for Sum of Major Fuels, 1999

	All Buildings			Sum of Major Fuel Expenditures			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)
Percent Lit When Open							
Zero	34	173	5.1	Q	Q	Q	Q
1 to 50	835	9,187	11.0	6,822	8.2	0.74	15.10
51 to 99	1,228	20,665	16.8	27,188	22.1	1.32	13.64
100	2,096	34,233	16.3	47,058	22.5	1.37	14.46
Building Never Open/ Electricity Not Used	464	3,080	6.6	403	0.9	0.13	14.04
Percent Lit When Closed							
Zero	2,174	20,771	9.6	17,327	8.0	0.83	14.81
1 to 50	1,688	30,950	18.3	38,650	22.9	1.25	14.84
51 to 100	143	2,160	15.1	4,575	31.9	2.12	14.74
Building Never Closed/ Electricity Not Used	652	13,457	20.7	21,001	32.2	1.56	12.74
Heating Equipment (more than one may apply)							
Heat Pumps	492	8,923	18.1	12,150	24.7	1.36	14.10
Furnaces	1,460	14,449	9.9	14,052	9.6	0.97	12.99
Individual Space Heaters	894	17,349	19.4	18,689	20.9	1.08	13.60
District Heat	96	5,534	57.7	10,208	106.4	1.84	12.24
Boilers	581	19,522	33.6	23,671	40.7	1.21	12.39
Packaged Heating Units	1,347	25,743	19.1	35,951	26.7	1.40	15.18
Other	185	4,073	22.1	5,151	27.9	1.26	13.32
Cooling Equipment (more than one may apply)							
Residential-Type Central Air Conditioners	676	8,329	12.3	8,891	13.1	1.07	13.24
Heat Pumps	485	9,147	18.8	12,330	25.4	1.35	14.16
Individual Air Conditioners	799	14,276	17.9	15,537	19.5	1.09	12.99
District Chilled Water	50	2,750	55.4	4,807	96.8	1.75	11.22
Central Chillers	130	12,909	99.7	20,759	160.3	1.61	12.99
Packaged Air Conditioning Units	1,953	36,527	18.7	50,789	26.0	1.39	14.98
Swamp Coolers	136	2,219	16.3	2,832	20.8	1.28	13.17
Other	49	1,312	26.7	1,821	37.0	1.39	14.03
Main Equipment Replaced Since 1995 (more than one may apply)							
Heating	984	13,220	13.4	16,100	16.4	1.22	14.84
Cooling	1,085	17,390	16.0	22,162	20.4	1.27	14.43
Lighting Equipment Types (more than one may apply)							
Incandescent	2,193	38,156	17.4	48,515	22.1	1.27	14.10
Standard Fluorescent	3,778	60,344	16.0	76,738	20.3	1.27	14.21
Compact Fluorescent	607	20,666	34.1	29,689	48.9	1.44	13.73
High Intensity Discharge	430	19,223	44.8	24,549	57.2	1.28	12.90
Halogen	572	17,926	31.3	25,096	43.9	1.40	13.91
Other	58	1,004	17.5	1,506	26.2	1.50	12.88
Water Heating Equipment							
Centralized System	2,472	35,579	14.4	47,665	19.3	1.34	14.15
Distributed System	566	10,899	19.3	13,260	23.4	1.22	15.21
Combination of Centralized and Distributed System	200	9,637	48.1	13,786	68.9	1.43	13.48

Table C4. Expenditures for Sum of Major Fuels, 1999

	All Buildings			Sum of Major Fuel Expenditures			
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (million dollars)	per Building (thousand dollars)	per Square Foot (dollars)	per Million Btu (dollars)
Commercial Refrigeration Equipment (more than one may apply)							
Any Equipment	950	25,652	27.0	40,917	43.1	1.60	14.24
Walk-In Units	658	19,713	29.9	33,935	51.5	1.72	14.10
Cases or Cabinets	820	22,001	26.8	35,710	43.6	1.62	14.39
None	3,707	41,686	11.2	40,635	11.0	0.97	14.21
Personal Computers							
None	1,617	9,583	5.9	6,478	4.0	0.68	14.14
1 to 4	1,636	13,853	8.5	16,059	9.8	1.16	14.90
5 to 9	542	6,528	12.0	8,451	15.6	1.29	14.46
10 to 19	403	7,514	18.7	9,636	23.9	1.28	15.40
20 to 49	247	8,087	32.7	9,782	39.6	1.21	14.94
50 to 99	105	5,867	55.9	6,928	66.0	1.18	13.03
100 to 249	71	6,818	96.0	9,137	128.6	1.34	13.28
250 or More	36	9,088	252.4	15,083	418.8	1.66	13.55
Photocopiers							
None	2,825	21,631	7.7	22,207	7.9	1.03	14.60
One	1,114	12,928	11.6	15,654	14.1	1.21	15.09
2 to 4	540	15,620	28.9	17,906	33.1	1.15	13.74
5 to 9	102	5,384	52.6	6,938	67.8	1.29	13.08
10 or More	75	11,774	156.7	18,847	250.8	1.60	14.06
Other Electronic Equipment (more than one may apply)							
Laser Printers	1,949	46,567	23.9	61,755	31.7	1.33	14.18
FAX Machines	2,807	54,764	19.5	72,276	25.8	1.32	14.33
Medical Diagnostic Equipment	86	2,493	29.1	4,977	58.1	2.00	10.64
Energy-Related Space Functions (more than one may apply)							
Commercial Food Preparation	767	23,328	30.4	35,213	45.9	1.51	13.82
Activities with Large Amounts of Hot Water	698	21,793	31.2	32,545	46.6	1.49	12.82
Building Shell Conservation Features (more than one may apply)							
Multipaned Windows	2,130	38,193	17.9	49,189	23.1	1.29	13.73
Tinted, Reflective, or Shading Glass	1,283	29,915	23.3	41,475	32.3	1.39	14.63
HVAC Conservation Features (more than one may apply)							
Variable Air-Volume System	550	19,387	35.3	29,233	53.2	1.51	13.82
Economizer Cycle	567	21,256	37.5	33,194	58.5	1.56	13.91
HVAC Maintenance	2,786	53,395	19.2	71,785	25.8	1.34	14.17
Energy Management and Control System (EMCS)	460	21,613	47.0	31,814	69.1	1.47	13.30
Lighting Conservation Features (more than one may apply)							
Specular Reflectors	843	19,994	23.7	28,083	33.3	1.40	14.65
Electronic Ballasts	2,167	42,035	19.4	55,999	25.8	1.33	14.36
Skylights or Atriums	580	18,286	31.5	21,710	37.5	1.19	13.41

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * HVAC=Heating, Ventilation, and Air Conditioning. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)				Total Floorspace of Buildings (million square feet)				Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings	1,116	1,509	1,961	1,147	12,360	16,761	23,485	14,731	90.3	90.0	83.5	77.9
Building Floorspace (Square Feet)												
1,001 to 5,000	123	197	296	156	901	1,835	2,536	1,503	137.0	107.2	116.9	103.8
5,001 to 10,000	96	142	227	143	1,302	2,045	3,058	1,834	74.0	69.3	74.1	78.2
10,001 to 25,000	151	177	304	111	1,954	2,881	4,194	2,124	77.2	61.3	72.6	52.3
25,001 to 50,000	117	139	255	181	1,407	1,773	3,384	2,746	83.2	78.2	75.3	66.0
50,001 to 100,000	150	216	270	229	1,771	2,436	3,450	2,455	84.7	88.9	78.3	93.1
100,001 to 200,000	124	255	263	131	1,461	2,279	2,864	1,666	84.6	111.7	91.9	78.3
200,001 to 500,000	127	217	207	108	1,362	1,993	2,273	1,222	93.1	109.0	91.1	88.8
Over 500,000	228	167	139	88	2,202	1,519	1,726	1,180	103.4	109.9	80.4	74.5
Principal Building Activity												
Education	154	178	159	157	1,714	2,250	2,348	2,338	90.0	79.1	67.8	67.3
Food Sales	Q	Q	80	Q	Q	Q	392	208	Q	Q	204.9	Q
Food Service	Q	113	Q	Q	Q	558	676	396	Q	202.7	Q	Q
Health Care	97	125	189	104	448	750	1,085	635	215.8	167.0	174.2	163.4
Inpatient	92	103	Q	Q	377	512	630	346	244.6	202.1	Q	Q
Outpatient	Q	Q	37	Q	Q	239	454	289	Q	Q	80.7	Q
Lodging	66	96	163	125	484	940	1,595	1,501	135.8	102.7	101.9	83.1
Mercantile	141	177	267	138	1,885	2,591	4,080	1,842	75.0	68.5	65.4	75.1
Retail (Other Than Mall)	82	106	111	44	974	1,600	1,566	627	84.2	66.4	71.1	70.7
Enclosed and Strip Malls	Q	71	155	94	912	991	2,513	1,215	Q	71.8	61.8	77.3
Office	217	270	378	225	2,389	2,820	4,162	2,672	90.7	95.7	90.7	84.3
Public Assembly	92	91	103	73	882	1,142	1,511	859	104.4	79.4	68.2	85.5
Public Order and Safety	Q	Q	Q	Q	530	216	286	Q	Q	Q	Q	Q
Religious Worship	18	31	33	27	440	923	1,146	896	41.2	34.0	28.9	30.2
Service	Q	99	218	33	740	818	1,387	443	Q	121.2	157.0	75.0
Warehouse and Storage	77	201	130	53	1,743	2,764	3,957	2,012	44.4	72.7	32.9	26.2
Other	Q	Q	32	Q	Q	283	305	338	Q	Q	105.3	Q
Vacant	Q	Q	Q	Q	367	533	554	455	Q	Q	Q	Q
Year Constructed												
1919 or Before	97	121	22	34	1,392	1,576	549	518	70.0	77.0	39.9	66.1
1920 to 1945	117	190	99	54	1,619	2,423	1,704	699	72.4	78.4	58.2	77.7
1946 to 1959	217	166	160	131	2,030	2,152	2,910	2,035	106.8	77.4	55.0	64.3
1960 to 1969	197	243	311	224	2,050	2,602	3,318	2,896	96.1	93.4	93.8	77.2
1970 to 1979	167	215	392	271	1,823	2,347	4,278	3,391	91.4	91.6	91.6	79.9
1980 to 1989	172	288	556	198	2,070	2,828	6,263	2,771	83.3	101.8	88.8	71.4
1990 to 1999	148	285	421	235	1,376	2,834	4,464	2,420	107.8	100.6	94.4	97.3
Floors												
One	239	482	888	394	3,131	5,800	11,826	6,044	76.5	83.1	75.1	65.2
Two	254	310	458	308	2,944	4,405	5,687	3,948	86.2	70.5	80.5	78.1
Three	191	244	160	139	2,261	2,725	2,106	1,836	84.4	89.6	75.8	75.5
Four to Nine	269	383	330	236	2,598	3,080	2,540	1,962	103.5	124.4	129.9	120.1
Ten or More	163	89	127	71	1,426	752	1,327	940	114.1	118.8	95.5	75.2
Climate Zone: 45-Year Average												
Under 2,000 CDD and --												
More than 7,000 HDD	80	379	N	51	1,184	4,185	N	522	67.5	90.5	N	98.1
5,500-7,000 HDD	494	843	N	198	5,806	8,932	N	2,345	85.1	94.3	N	84.3
4,000-5,499 HDD	542	287	518	198	5,370	3,645	4,759	2,470	100.9	78.8	108.8	80.2
Fewer than 4,000 HDD	N	N	760	532	N	N	8,859	7,474	N	N	85.7	71.2
2,000 CDD or More and --												
Fewer than 4,000 HDD	N	N	684	168	N	N	9,867	1,920	N	N	69.4	87.7

Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)				Total Floorspace of Buildings (million square feet)				Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Workers (main shift)												
Fewer than 5	90	192	260	135	1,906	4,033	5,579	2,802	47.0	47.7	46.6	48.3
5 to 9	93	141	126	105	1,372	1,689	1,730	1,533	67.7	83.6	72.9	68.2
10 to 19	141	171	256	123	1,472	1,930	2,935	1,690	96.0	88.7	87.2	72.6
20 to 49	168	207	444	197	1,574	2,575	4,174	2,492	106.5	80.4	106.3	79.2
50 to 99	164	173	225	168	1,814	1,876	2,876	2,332	90.3	92.4	78.1	72.1
100 to 249	157	263	288	157	1,702	2,228	2,856	1,570	92.4	118.1	100.8	99.8
250 or More	303	360	363	262	2,519	2,430	3,335	2,312	120.3	148.3	108.9	113.6
Weekly Operating Hours												
39 or Fewer	25	48	55	36	900	1,851	2,532	1,313	28.3	25.8	21.8	27.2
40 to 48	125	176	269	177	1,879	2,989	5,265	2,972	66.4	59.0	51.0	59.4
49 to 60	189	268	400	211	2,792	3,577	4,617	3,214	67.8	74.8	86.7	65.6
61 to 84	227	286	337	200	2,482	3,088	4,198	2,689	91.5	92.5	80.3	74.4
85 to 167	176	305	367	209	1,813	2,531	2,978	1,794	96.9	120.7	123.2	116.5
Open Continuously	374	426	533	315	2,494	2,725	3,896	2,748	149.8	156.3	136.9	114.6
Ownership and Occupancy												
Nongovernment Owned	850	1,215	1,593	907	9,542	13,896	19,745	11,810	89.1	87.4	80.7	76.8
Owner Occupied	677	907	1,171	585	7,143	9,990	13,228	7,424	94.7	90.8	88.5	78.8
Nonowner Occupied	173	303	411	320	2,286	3,427	5,881	4,001	75.6	88.5	69.9	79.9
Unoccupied	Q	Q	Q	Q	Q	479	636	385	Q	Q	Q	Q
Government Owned	266	294	369	241	2,818	2,865	3,740	2,921	94.3	102.5	98.6	82.3
Federal	Q	Q	68	Q	394	318	549	537	Q	Q	124.2	114.7
State	78	113	117	68	683	961	919	828	114.6	117.7	127.3	82.4
Local	148	131	184	111	1,741	1,586	2,273	1,556	85.2	82.9	80.9	71.2
Vacancy Status												
Completely Vacant	N	Q	Q	Q	Q	298	Q	287	N	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	235	Q	Q	Q	Q	Q	Q
Partially Vacant	224	292	340	192	2,693	4,031	5,548	3,248	83.1	72.5	61.3	59.3
Not At All Vacant	889	1,201	1,615	949	9,301	12,197	17,383	11,029	95.6	98.4	92.9	86.0
Number of Establishments												
One	749	1,094	1,390	814	7,665	11,299	14,723	9,655	97.7	96.8	94.4	84.4
2 to 5	150	247	220	145	2,186	2,900	3,421	2,075	68.5	85.0	64.2	69.8
6 to 10	Q	39	127	88	494	571	1,440	1,068	Q	67.5	88.1	82.5
11 to 20	Q	53	100	43	705	579	1,239	738	Q	91.3	80.4	58.2
More than 20	111	71	115	53	1,159	864	2,000	788	95.5	82.2	57.5	67.4
Currently Unoccupied	Q	Q	Q	Q	Q	548	662	407	Q	Q	Q	Q
Energy Sources (more than one may apply)												
Electricity	1,116	1,509	1,961	1,147	11,964	16,389	23,076	14,287	93.2	92.1	85.0	80.3
Natural Gas	753	1,311	1,489	902	7,305	13,506	14,199	10,515	103.1	97.1	104.9	85.8
Fuel Oil	484	358	443	202	5,414	2,423	3,749	1,699	89.3	147.6	118.2	119.1
District Heat	289	235	210	171	1,898	1,521	1,265	1,207	152.1	154.4	166.3	141.5
District Chilled Water	Q	132	119	Q	326	746	939	739	Q	177.5	126.3	Q
Propane	124	Q	137	45	1,706	1,405	2,389	790	72.6	88.3	57.4	56.6
Other	Q	58	56	45	580	606	579	557	Q	95.9	97.1	81.3
Space-Heating Energy Sources (more than one may apply)												
Electricity	433	573	1,123	504	4,625	6,429	13,862	7,375	93.7	89.2	81.0	68.3
Natural Gas	563	1,163	1,082	747	5,703	12,467	10,904	8,828	98.7	93.3	99.2	84.6
Fuel Oil	283	99	114	Q	3,612	619	1,128	252	78.4	160.3	101.2	Q
District Heat	287	230	162	155	1,876	1,514	1,022	1,121	153.0	152.2	158.2	138.1
Propane	59	17	34	Q	761	733	1,013	221	77.6	22.7	33.5	Q
Other	Q	Q	Q	Q	Q	281	260	Q	Q	Q	Q	Q

Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)				Total Floorspace of Buildings (million square feet)				Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Primary Space-Heating Energy Source												
Electricity	142	208	713	283	1,645	2,355	9,259	4,368	86.3	88.3	77.0	64.8
Natural Gas	473	1,056	897	638	4,913	11,348	8,815	7,653	96.3	93.0	101.8	83.3
Fuel Oil	205	Q	52	Q	2,803	Q	718	Q	73.0	Q	71.7	Q
District Heat	250	218	143	148	1,709	1,411	904	1,053	146.2	154.5	157.9	140.5
Propane	Q	8	22	Q	505	626	819	157	Q	12.9	27.2	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Sources (more than one may apply)												
Electricity	966	1,260	1,798	914	9,766	13,474	20,908	11,396	98.9	93.5	86.0	80.2
Natural Gas	Q	70	Q	65	446	550	266	652	Q	127.7	Q	99.2
District Chilled Water	Q	132	119	Q	326	746	939	739	Q	177.5	126.3	Q
Water-Heating Energy Sources (more than one may apply)												
Electricity	374	419	764	278	4,485	4,633	10,480	4,574	83.4	90.5	72.9	60.7
Natural Gas	421	823	1,010	707	4,074	8,323	8,943	7,856	103.4	98.8	113.0	90.0
Fuel Oil	151	Q	63	Q	1,678	Q	328	Q	90.2	Q	190.9	Q
District Heat	205	188	168	Q	1,300	1,219	863	799	157.4	154.2	194.8	145.2
Propane	Q	Q	Q	Q	561	428	Q	Q	Q	Q	Q	Q
Cooking Energy Sources (more than one may apply)												
Electricity	287	365	616	252	2,680	3,335	5,166	2,551	107.2	109.5	119.2	98.8
Natural Gas	388	495	665	379	3,380	4,445	5,345	3,614	114.9	111.4	124.3	105.0
Propane	63	Q	Q	Q	523	Q	789	Q	119.7	Q	76.6	Q
Energy End Uses (more than one may apply)												
Buildings with Space Heating	1,109	1,499	1,831	1,090	11,667	15,916	20,598	13,421	95.1	94.2	88.9	81.2
Buildings with Cooling	1,035	1,406	1,873	1,030	10,311	14,371	21,549	12,243	100.3	97.8	86.9	84.1
Buildings with Water Heating	1,055	1,339	1,804	1,063	10,577	13,702	19,014	12,822	99.8	97.7	94.9	82.9
Buildings with Cooking	583	660	974	461	5,245	6,042	8,569	4,825	111.2	109.3	113.7	95.6
Buildings with Manufacturing	Q	109	77	41	568	818	1,035	706	Q	132.8	74.5	57.6
Buildings with Electricity Generation	348	407	495	244	3,108	2,782	4,062	1,930	112.1	146.1	121.8	126.3
Percent of Floorspace Heated												
Not Heated	Q	Q	131	57	693	846	2,887	1,310	Q	Q	45.3	43.8
1 to 50	44	64	118	108	1,053	1,571	2,538	2,432	41.8	40.6	46.3	44.2
51 to 99	148	177	465	189	1,688	2,323	4,335	2,399	87.7	76.2	107.4	78.7
100	917	1,258	1,248	794	8,927	12,022	13,725	8,590	102.7	104.6	90.9	92.4
Percent of Floorspace Cooled												
Not Cooled	81	103	Q	117	2,049	2,390	1,936	2,489	39.7	43.0	Q	47.1
1 to 50	282	416	272	152	3,914	5,068	4,618	3,246	72.0	82.1	58.8	46.8
51 to 99	361	475	591	317	3,196	4,741	5,801	3,229	112.9	100.2	101.8	98.1
100	392	515	1,011	562	3,202	4,562	11,130	5,768	122.4	112.8	90.9	97.4
Percent Lit When Open												
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	70	144	148	90	1,620	2,486	3,013	2,068	43.4	57.9	49.1	43.4
51 to 99	440	571	635	347	4,081	5,814	6,392	4,378	107.8	98.2	99.4	79.2
100	604	785	1,160	706	6,077	7,668	12,817	7,671	99.5	102.4	90.5	92.0
Building Never Open/ Electricity Not Used	Q	Q	Q	Q	555	780	1,162	582	Q	Q	Q	Q

Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)				Total Floorspace of Buildings (million square feet)				Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Percent Lit When Closed												
Zero	185	309	364	313	3,390	5,264	7,296	4,821	54.4	58.6	49.8	65.0
1 to 50	514	740	893	457	5,766	8,047	10,912	6,226	89.1	92.0	81.8	73.4
51 to 100	Q	Q	172	62	318	353	992	497	Q	Q	172.8	124.0
Building Never Closed/ Electricity Not Used	374	426	533	315	2,887	3,097	4,285	3,188	129.6	137.5	124.5	98.9
Heating Equipment (more than one may apply)												
Heat Pumps	124	109	477	152	1,193	1,015	4,580	2,135	104.1	107.1	104.2	71.0
Furnaces	170	464	300	148	2,257	5,767	3,949	2,476	75.3	80.4	76.0	59.8
Individual Space Heaters	295	416	406	257	3,555	4,667	5,471	3,657	82.9	89.2	74.2	70.3
District Heat	287	230	162	155	1,876	1,514	1,022	1,121	153.0	152.2	158.2	138.1
Boilers	467	584	487	372	5,469	5,961	4,209	3,883	85.4	98.0	115.8	95.8
Packaged Heating Units	401	568	911	488	4,033	5,081	10,455	6,175	99.4	111.8	87.1	79.1
Other	65	Q	111	66	769	1,113	1,391	800	84.9	129.5	79.8	82.8
Cooling Equipment (more than one may apply)												
Residential-Type Central Air Conditioners	87	231	274	79	950	2,951	3,272	1,156	91.8	78.3	83.7	68.8
Heat Pumps	111	112	481	167	1,215	1,063	4,604	2,265	91.6	105.5	104.4	73.6
Individual Air Conditioners	359	334	351	152	3,897	3,724	4,526	2,130	92.2	89.6	77.5	71.5
District Chilled Water	Q	132	119	Q	326	746	939	739	Q	177.5	126.3	Q
Central Chillers	342	424	523	310	2,782	3,149	4,328	2,651	122.8	134.6	120.9	116.8
Packaged Air Conditioning Units	695	877	1,173	645	6,641	8,198	13,915	7,773	104.7	106.9	84.3	83.0
Swamp Coolers	Q	Q	Q	139	Q	Q	339	1,624	Q	Q	Q	85.7
Other	Q	Q	Q	Q	Q	328	343	324	Q	Q	Q	Q
Main Equipment Replaced Since 1995 (more than one may apply)												
Heating	158	278	413	235	1,829	3,244	5,080	3,068	86.4	85.8	81.3	76.6
Cooling	294	376	597	268	3,080	3,808	7,088	3,414	95.4	98.8	84.2	78.5
Lighting Equipment Types (more than one may apply)												
Incandescent	691	858	1,155	736	7,047	9,903	12,970	8,236	98.1	86.7	89.1	89.3
Standard Fluorescent	1,058	1,422	1,828	1,092	11,348	14,840	20,850	13,305	93.3	95.8	87.7	82.1
Compact Fluorescent	443	623	645	451	3,939	5,518	6,427	4,781	112.6	112.9	100.3	94.3
High Intensity Discharge	390	617	625	271	4,382	5,513	5,874	3,454	89.1	111.8	106.4	78.4
Halogen	423	472	554	355	3,625	4,405	5,847	4,049	116.8	107.3	94.8	87.6
Other	Q	Q	Q	Q	Q	Q	441	180	Q	Q	Q	Q
Water Heating Equipment												
Centralized System	727	804	1,129	707	6,941	9,037	11,500	8,102	104.8	88.9	98.2	87.3
Distributed System	126	224	329	193	1,823	2,328	4,120	2,628	68.9	96.3	79.7	73.6
Combination of Centralized and Distributed System	203	311	346	162	1,813	2,336	3,395	2,093	111.7	133.3	102.0	77.6
Commercial Refrigeration Equipment (more than one may apply)												
Any Equipment	619	734	983	538	5,536	6,252	8,734	5,130	111.8	117.3	112.6	105.0
Walk-In Units	506	592	848	461	4,335	4,580	6,809	3,988	116.7	129.3	124.6	115.5
Cases or Cabinets	528	632	857	464	4,723	5,429	7,512	4,337	111.9	116.4	114.1	106.9
None	497	775	978	609	6,824	10,509	14,751	9,601	72.8	73.8	66.3	63.4

Table C5. Consumption and Gross Energy Intensity by Census Region for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)				Total Floorspace of Buildings (million square feet)				Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Personal Computers												
None	52	131	158	116	1,524	2,653	3,722	1,684	34.0	49.5	42.6	69.1
1 to 4	184	318	382	194	2,293	3,758	4,755	3,045	80.3	84.5	80.4	63.6
5 to 9	66	105	304	109	811	1,308	2,870	1,539	81.6	80.3	105.8	71.0
10 to 19	169	111	237	109	1,749	1,570	2,707	1,488	96.9	70.4	87.5	73.1
20 to 49	138	177	216	124	1,395	1,935	2,588	2,168	98.6	91.3	83.5	57.3
50 to 99	91	177	147	116	903	1,638	1,893	1,432	101.2	107.8	77.8	81.3
100 to 249	149	216	192	131	1,599	1,829	2,174	1,216	92.9	118.3	88.5	107.5
250 or More	267	275	324	247	2,085	2,069	2,776	2,158	127.9	132.7	116.8	114.7
Photocopiers												
None	237	375	572	338	3,696	5,185	8,044	4,706	64.2	72.2	71.1	71.7
One	166	262	402	207	1,633	3,164	5,040	3,091	101.6	82.7	79.9	67.1
2 to 4	256	343	458	246	2,976	4,227	5,109	3,308	86.0	81.2	89.7	74.4
5 to 9	87	208	131	104	986	1,577	1,586	1,234	87.9	132.2	82.5	84.5
10 or More	370	321	398	252	3,069	2,607	3,705	2,393	120.6	123.1	107.3	105.3
Other Electronic Equipment (more than one may apply)												
Laser Printers	907	1,126	1,467	855	9,112	11,161	15,628	10,666	99.6	100.9	93.9	80.2
FAX Machines	1,015	1,332	1,707	990	10,496	13,369	18,804	12,095	96.7	99.6	90.8	81.8
Medical Diagnostic Equipment	82	110	179	98	365	586	953	588	223.6	187.3	187.6	165.9
Energy-Related Space Functions (more than one may apply)												
Commercial Food Preparation	543	628	933	444	4,890	5,709	8,126	4,603	111.0	110.0	114.8	96.4
Activities with Large Amounts of Hot Water	504	632	899	504	4,268	5,335	7,199	4,990	118.1	118.5	124.8	101.0
Building Shell Conservation Features (more than one may apply)												
Multipaned Windows	757	1,067	1,154	605	7,564	11,546	11,981	7,103	100.1	92.4	96.3	85.2
Tinted, Reflective, or Shading Glass	477	686	1,006	666	4,525	6,364	11,246	7,780	105.5	107.7	89.4	85.6
HVAC Conservation Features (more than one may apply)												
Variable Air-Volume System	406	578	650	482	3,643	4,858	6,121	4,765	111.5	119.0	106.1	101.0
Economizer Cycle	498	734	614	541	4,634	5,688	5,858	5,075	107.4	129.0	104.9	106.6
HVAC Maintenance	1,050	1,294	1,699	1,022	10,640	13,025	17,981	11,749	98.6	99.3	94.5	87.0
Energy Management and Control System (EMCS)	466	698	718	510	4,211	5,296	7,108	4,998	110.8	131.8	101.0	101.9
Lighting Conservation Features (more than one may apply)												
Specular Reflectors	516	466	570	365	4,874	4,296	6,400	4,424	105.9	108.5	89.1	82.5
Electronic Ballasts	822	1,091	1,211	777	8,480	10,287	13,745	9,523	96.9	106.0	88.1	81.6
Skylights or Atriums	337	477	533	271	3,697	4,491	6,116	3,982	91.3	106.3	87.1	68.1

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * HVAC=Heating, Ventilation, and Air Conditioning. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C6. Expenditures by Census Region for Sum of Major Fuels, 1999

	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars) per Million Btu				Sum of Major Fuel Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings	18,996	17,258	27,303	17,995	17.02	11.44	13.92	15.69	1.54	1.03	1.16	1.22
Building Floorspace (Square Feet)												
1,001 to 5,000	2,753	2,312	4,637	2,654	22.31	11.75	15.64	17.01	3.06	1.26	1.83	1.77
5,001 to 10,000	1,634	1,883	3,193	2,517	16.96	13.29	14.09	17.56	1.26	0.92	1.04	1.37
10,001 to 25,000	2,500	2,145	4,187	2,041	16.57	12.15	13.76	18.37	1.28	0.74	1.00	0.96
25,001 to 50,000	1,990	1,580	3,589	2,931	16.98	11.40	14.08	16.18	1.41	0.89	1.06	1.07
50,001 to 100,000	2,430	2,594	3,755	3,277	16.20	11.98	13.90	14.33	1.37	1.06	1.09	1.33
100,001 to 200,000	2,090	2,670	3,639	1,945	16.92	10.49	13.83	14.90	1.43	1.17	1.27	1.17
200,001 to 500,000	1,805	2,133	2,609	1,468	14.23	9.82	12.60	13.53	1.32	1.07	1.15	1.20
Over 500,000	3,793	1,943	1,694	1,161	16.66	11.64	12.21	13.21	1.72	1.28	0.98	0.98
Principal Building Activity												
Education	2,045	1,802	2,098	2,073	13.25	10.13	13.17	13.18	1.19	0.80	0.89	0.89
Food Sales	Q	Q	1,409	704	Q	Q	17.57	Q	Q	Q	3.60	3.39
Food Service	Q	1,450	2,219	1,453	Q	12.83	Q	Q	Q	2.60	3.28	3.67
Health Care	1,029	1,243	2,152	1,229	10.65	9.92	11.39	11.85	2.30	1.66	1.98	1.94
Inpatient	944	913	1,490	Q	10.23	8.83	Q	Q	2.50	1.78	2.36	Q
Outpatient	Q	330	662	425	Q	Q	18.04	Q	Q	1.38	1.46	1.47
Lodging	818	1,053	2,029	1,817	12.44	10.91	12.47	14.56	1.69	1.12	1.27	1.21
Mercantile	3,138	2,421	4,370	3,156	22.20	13.64	16.38	22.82	1.66	0.93	1.07	1.71
Retail (Other Than Mall)	1,769	1,410	1,785	957	21.59	13.27	16.03	21.58	1.82	0.88	1.14	1.53
Enclosed and Strip Malls	1,369	1,011	2,584	2,199	Q	14.19	16.63	23.41	1.50	1.02	1.03	1.81
Office	4,338	3,674	5,962	3,801	20.02	13.62	15.79	16.87	1.82	1.30	1.43	1.42
Public Assembly	1,565	1,195	1,532	804	17.01	13.19	14.86	10.96	1.77	1.05	1.01	0.94
Public Order and Safety	Q	Q	324	Q	Q	Q	Q	Q	Q	Q	1.13	Q
Religious Worship	224	357	569	344	12.35	11.36	17.16	Q	0.51	0.39	0.50	0.38
Service	1,047	996	2,141	455	Q	10.04	9.83	13.70	1.42	1.22	1.54	1.03
Warehouse and Storage	1,370	1,747	1,911	1,001	17.71	8.69	14.69	19.00	0.79	0.63	0.48	0.50
Other	Q	Q	487	Q	Q	Q	15.14	Q	Q	Q	1.59	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year Constructed												
1919 or Before	1,319	1,245	330	377	13.55	10.26	15.05	10.99	0.95	0.79	0.60	0.73
1920 to 1945	1,680	2,109	1,318	689	14.32	11.10	13.30	12.68	1.04	0.87	0.77	0.99
1946 to 1959	3,195	1,794	2,397	1,830	14.73	10.78	14.98	13.99	1.57	0.83	0.82	0.90
1960 to 1969	3,418	2,658	3,883	3,278	17.34	10.94	12.48	14.65	1.67	1.02	1.17	1.13
1970 to 1979	3,027	2,611	5,613	4,606	18.16	12.14	14.32	17.01	1.66	1.11	1.31	1.36
1980 to 1989	3,566	3,660	7,525	3,592	20.69	12.71	13.53	18.15	1.72	1.29	1.20	1.30
1990 to 1999	2,791	3,181	6,236	3,624	18.82	11.15	14.81	15.39	2.03	1.12	1.40	1.50
Floors												
One	4,791	5,784	13,093	7,295	20.01	12.00	14.75	18.52	1.53	1.00	1.11	1.21
Two	4,762	3,605	6,165	4,932	18.75	11.62	13.47	16.00	1.62	0.82	1.08	1.25
Three	2,814	2,670	2,161	1,838	14.74	10.94	13.54	13.25	1.24	0.98	1.03	1.00
Four to Nine	3,950	4,139	4,035	2,850	14.69	10.81	12.23	12.10	1.52	1.34	1.59	1.45
Ten or More	2,680	1,060	1,850	1,080	16.48	11.86	14.60	15.26	1.88	1.41	1.39	1.15
Climate Zone: 45-Year Average												
Under 2,000 CDD and --												
More than 7,000 HDD	1,510	3,967	N	531	18.91	10.47	N	10.37	1.28	0.95	N	1.02
5,500-7,000 HDD	8,420	9,548	N	1,841	17.03	11.33	N	9.31	1.45	1.07	N	0.78
4,000-5,499 HDD	9,065	3,743	6,706	2,386	16.73	13.03	12.95	12.05	1.69	1.03	1.41	0.97
Fewer than 4,000 HDD	N	N	10,217	10,331	N	N	13.45	19.42	N	N	1.15	1.38
2,000 CDD or More and --												
Fewer than 4,000 HDD	N	N	10,380	2,906	N	N	15.17	17.26	N	N	1.05	1.51

Table C6. Expenditures by Census Region for Sum of Major Fuels, 1999

	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars) per Million Btu				Sum of Major Fuel Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Workers (main shift)												
Fewer than 5	1,528	2,335	4,182	2,199	17.06	12.14	16.08	16.23	0.80	0.58	0.75	0.78
5 to 9	1,725	1,655	1,977	1,572	18.55	11.72	15.68	15.03	1.26	0.98	1.14	1.03
10 to 19	2,597	1,938	3,556	2,336	18.36	11.32	13.90	19.02	1.76	1.00	1.21	1.38
20 to 49	2,927	2,425	5,683	2,902	17.45	11.71	12.81	14.71	1.86	0.94	1.36	1.16
50 to 99	2,685	2,008	3,235	3,010	16.39	11.58	14.40	17.91	1.48	1.07	1.13	1.29
100 to 249	2,625	2,917	3,927	2,216	16.69	11.08	13.64	14.15	1.54	1.31	1.37	1.41
250 or More	4,909	3,980	4,742	3,761	16.20	11.04	13.06	14.33	1.95	1.64	1.42	1.63
Weekly Operating Hours												
39 or Fewer	298	577	908	532	11.71	12.08	16.46	14.92	0.33	0.31	0.36	0.41
40 to 48	2,060	2,070	4,127	2,703	16.52	11.73	15.36	15.30	1.10	0.69	0.78	0.91
49 to 60	3,574	2,983	5,633	3,624	18.89	11.14	14.08	17.18	1.28	0.83	1.22	1.13
61 to 84	3,853	3,786	4,786	3,471	16.96	13.26	14.19	17.34	1.55	1.23	1.14	1.29
85 to 167	3,272	3,676	5,198	3,422	18.64	12.03	14.17	16.38	1.81	1.45	1.75	1.91
Open Continuously	5,938	4,167	6,650	4,243	15.89	9.78	12.47	13.47	2.38	1.53	1.71	1.54
Ownership and Occupancy												
Nongovernment Owned	15,121	14,300	22,523	14,857	17.79	11.77	14.14	16.39	1.58	1.03	1.14	1.26
Owner Occupied	11,600	10,743	16,021	8,999	17.14	11.84	13.68	15.38	1.62	1.08	1.21	1.21
Nonowner Occupied	3,514	3,499	6,362	5,820	20.34	11.54	15.47	18.21	1.54	1.02	1.08	1.45
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	3,875	2,958	4,780	3,138	14.58	10.08	12.96	13.05	1.38	1.03	1.28	1.07
Federal	Q	Q	930	606	Q	Q	13.65	9.85	Q	Q	1.70	1.13
State	1,169	1,126	1,202	1,019	14.95	9.96	10.28	14.94	1.71	1.17	1.31	1.23
Local	1,987	1,381	2,649	1,512	13.39	10.50	14.41	13.66	1.14	0.87	1.17	0.97
Vacancy Status												
Completely Vacant	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant	3,996	3,726	5,076	3,430	17.86	12.74	14.92	17.82	1.48	0.92	0.91	1.06
Not At All Vacant	14,957	13,402	22,126	14,480	16.82	11.16	13.70	15.26	1.61	1.10	1.27	1.31
Number of Establishments												
One	12,261	11,935	18,411	11,914	16.38	10.91	13.24	14.63	1.60	1.06	1.25	1.23
2 to 5	2,477	3,001	3,373	2,406	16.54	12.17	15.35	16.60	1.13	1.03	0.99	1.16
6 to 10	838	550	1,889	1,871	Q	14.25	14.90	21.22	1.70	0.96	1.31	1.75
11 to 20	1,141	679	1,585	841	Q	12.86	15.93	19.59	1.62	1.17	1.28	1.14
More than 20	2,268	1,019	1,905	911	20.50	14.34	16.58	17.15	1.96	1.18	0.95	1.16
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than one may apply)												
Electricity	18,993	17,258	27,303	17,993	17.03	11.44	13.92	15.69	1.59	1.05	1.18	1.26
Natural Gas	12,191	14,468	18,667	13,472	16.19	11.04	12.54	14.93	1.67	1.07	1.31	1.28
Fuel Oil	7,225	3,461	5,609	2,559	14.94	9.68	12.66	12.65	1.33	1.43	1.50	1.51
District Heat	4,421	2,543	2,097	1,855	15.32	10.83	9.96	10.86	2.33	1.67	1.66	1.54
District Chilled Water	Q	1,326	1,272	1,283	Q	10.01	10.72	Q	Q	1.78	1.35	1.74
Propane	2,584	1,332	2,182	956	20.86	10.74	15.90	21.38	1.51	0.95	0.91	1.21
Other	Q	595	888	861	Q	10.25	15.78	19.01	Q	0.98	1.53	1.55
Space-Heating Energy Sources (more than one may apply)												
Electricity	7,893	7,392	16,989	8,404	18.22	12.89	15.12	16.68	1.71	1.15	1.23	1.14
Natural Gas	9,294	12,745	13,556	10,876	16.51	10.96	12.53	14.57	1.63	1.02	1.24	1.23
Fuel Oil	3,994	816	1,505	Q	14.10	8.23	13.18	Q	1.11	1.32	1.33	Q
District Heat	4,390	2,478	1,711	1,629	15.30	10.76	10.58	Q	2.34	1.64	1.67	1.45
Propane	1,566	272	659	193	26.51	16.39	19.39	Q	2.06	0.37	0.65	0.88
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

Table C6. Expenditures by Census Region for Sum of Major Fuels, 1999

	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars) per Million Btu				Sum of Major Fuel Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Primary Space-Heating Energy Source												
Electricity	3,100	3,201	11,664	5,557	21.85	15.40	16.36	19.62	1.88	1.36	1.26	1.27
Natural Gas	7,717	11,274	10,903	9,103	16.32	10.68	12.15	14.28	1.57	0.99	1.24	1.19
Fuel Oil	2,894	Q	769	Q	14.15	Q	14.93	Q	1.03	Q	1.07	Q
District Heat	3,924	2,349	1,490	1,524	15.70	10.77	10.44	Q	2.30	1.66	1.65	1.45
Propane	1,161	184	465	Q	Q	22.90	20.89	Q	2.30	0.29	0.57	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Sources (more than one may apply)												
Electricity	16,860	14,750	25,718	14,921	17.46	11.71	14.30	16.32	1.73	1.09	1.23	1.31
Natural Gas	Q	769	Q	1,260	Q	10.95	Q	19.49	Q	1.40	Q	1.93
District Chilled Water	Q	1,326	1,272	1,283	Q	10.01	10.72	Q	Q	1.78	1.35	1.74
Water-Heating Energy Sources (more than one may apply)												
Electricity	7,522	5,197	12,655	5,371	20.10	12.40	16.56	19.35	1.68	1.12	1.21	1.17
Natural Gas	6,468	9,152	12,280	10,498	15.35	11.13	12.15	14.86	1.59	1.10	1.37	1.34
Fuel Oil	2,055	Q	527	Q	13.58	Q	8.43	Q	1.22	Q	1.61	Q
District Heat	3,042	2,070	1,529	1,270	14.87	11.01	9.09	10.94	2.34	1.70	1.77	1.59
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.97	Q	Q
Cooking Energy Sources (more than one may apply)												
Electricity	4,974	4,410	8,483	3,561	17.31	12.07	13.78	14.14	1.86	1.32	1.64	1.40
Natural Gas	6,025	5,428	8,362	5,350	15.51	10.96	12.58	14.10	1.78	1.22	1.56	1.48
Propane	1,392	Q	994	Q	22.23	Q	16.44	Q	2.66	Q	1.26	Q
Energy End Uses (more than one may apply)												
Buildings with Space Heating	18,843	17,125	25,360	16,534	16.99	11.43	13.85	15.17	1.62	1.08	1.23	1.23
Buildings with Cooling	17,982	16,295	26,560	16,441	17.38	11.59	14.18	15.96	1.74	1.13	1.23	1.34
Buildings with Water Heating	17,894	15,455	24,625	16,737	16.95	11.54	13.65	15.74	1.69	1.13	1.30	1.31
Buildings with Cooking	9,590	7,627	13,249	6,766	16.44	11.55	13.60	14.67	1.83	1.26	1.55	1.40
Buildings with Manufacturing	Q	1,130	1,061	672	Q	10.40	13.77	16.51	1.67	1.38	1.03	0.95
Buildings with Electricity Generation	5,348	4,122	6,452	3,069	15.35	10.14	13.04	12.59	1.72	1.48	1.59	1.59
Percent of Floorspace Heated												
Not Heated	Q	Q	1,944	1,460	Q	Q	14.88	25.47	Q	Q	0.67	1.11
1 to 50	803	868	1,577	2,046	18.23	13.61	13.41	19.03	0.76	0.55	0.62	0.84
51 to 99	2,793	2,257	5,889	3,001	18.88	12.74	12.65	15.89	1.65	0.97	1.36	1.25
100	15,248	14,000	17,894	11,488	16.63	11.13	14.34	14.48	1.71	1.16	1.30	1.34
Percent of Floorspace Cooled												
Not Cooled	1,014	964	Q	1,554	12.48	9.38	8.44	13.26	0.49	0.40	Q	0.62
1 to 50	4,143	3,970	3,478	2,481	14.70	9.54	12.80	16.34	1.06	0.78	0.75	0.76
51 to 99	6,119	5,654	8,031	4,618	16.96	11.90	13.60	14.58	1.91	1.19	1.38	1.43
100	7,720	6,671	15,051	9,342	19.69	12.96	14.88	16.64	2.41	1.46	1.35	1.62
Percent Lit When Open												
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	1,294	1,693	2,148	1,687	18.42	11.76	14.51	18.82	0.80	0.68	0.71	0.82
51 to 99	6,917	6,559	8,402	5,311	15.73	11.49	13.23	15.32	1.69	1.13	1.31	1.21
100	10,762	8,905	16,463	10,927	17.81	11.34	14.19	15.49	1.77	1.16	1.28	1.42
Building Never Open/ Electricity Not Used	Q	100	Q	Q	Q	Q	Q	Q	Q	0.13	Q	Q

Table C6. Expenditures by Census Region for Sum of Major Fuels, 1999

	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars) per Million Btu				Sum of Major Fuel Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Percent Lit When Closed												
Zero	3,138	3,684	5,509	4,997	17.00	11.93	15.15	15.94	0.93	0.70	0.76	1.04
1 to 50	9,116	8,965	12,891	7,678	17.74	12.11	14.44	16.80	1.58	1.11	1.18	1.23
51 to 100	Q	443	2,254	1,076	Q	Q	13.14	17.47	Q	1.25	2.27	2.17
Building Never Closed/ Electricity Not Used	5,941	4,167	6,650	4,244	15.88	9.78	12.47	13.46	2.06	1.35	1.55	1.33
Heating Equipment (more than one may apply)												
Heat Pumps	1,885	1,232	6,435	2,598	15.17	11.34	13.48	17.14	1.58	1.21	1.41	1.22
Furnaces	2,795	5,291	3,971	1,995	16.45	11.41	13.23	13.46	1.24	0.92	1.01	0.81
Individual Space Heaters	4,991	4,621	5,660	3,417	16.94	11.11	13.94	13.28	1.40	0.99	1.03	0.93
District Heat	4,390	2,478	1,711	1,629	15.30	10.76	10.58	Q	2.34	1.64	1.67	1.45
Boilers	6,983	5,972	6,009	4,707	14.94	10.23	12.33	12.65	1.28	1.00	1.43	1.21
Packaged Heating Units	7,873	6,708	12,999	8,371	19.63	11.81	14.27	17.14	1.95	1.32	1.24	1.36
Other	1,029	1,505	1,706	912	15.74	10.44	15.38	13.77	1.34	1.35	1.23	1.14
Cooling Equipment (more than one may apply)												
Residential-Type Central Air Conditioners	1,344	2,782	3,669	1,096	15.40	12.04	13.40	13.78	1.41	0.94	1.12	0.95
Heat Pumps	1,665	1,302	6,453	2,910	14.95	11.60	13.43	17.47	1.37	1.22	1.40	1.29
Individual Air Conditioners	5,188	3,475	4,730	2,144	14.44	10.41	13.48	14.09	1.33	0.93	1.05	1.01
District Chilled Water	Q	1,326	1,272	1,283	Q	10.01	10.72	Q	Q	1.78	1.35	1.74
Central Chillers	5,207	4,606	6,813	4,134	15.24	10.87	13.02	13.35	1.87	1.46	1.57	1.56
Packaged Air Conditioning Units	12,746	10,164	16,955	10,924	18.33	11.60	14.45	16.94	1.92	1.24	1.22	1.41
Swamp Coolers	Q	Q	Q	1,939	Q	Q	Q	13.94	Q	Q	Q	1.19
Other	Q	Q	447	529	Q	Q	Q	Q	Q	Q	1.30	1.63
Main Equipment Replaced Since 1995 (more than one may apply)												
Heating	2,861	3,300	6,060	3,879	18.11	11.85	14.67	16.51	1.56	1.02	1.19	1.26
Cooling	4,813	4,297	8,570	4,481	16.38	11.42	14.35	16.72	1.56	1.13	1.21	1.31
Lighting Equipment Types (more than one may apply)												
Incandescent	11,356	9,913	16,245	11,000	16.43	11.55	14.06	14.95	1.61	1.00	1.25	1.34
Standard Fluorescent	17,853	16,321	25,482	17,081	16.87	11.48	13.94	15.65	1.57	1.10	1.22	1.28
Compact Fluorescent	7,248	7,208	8,764	6,470	16.34	11.56	13.59	14.35	1.84	1.31	1.36	1.35
High Intensity Discharge	6,331	6,378	8,004	3,836	16.22	10.34	12.81	14.17	1.44	1.16	1.36	1.11
Halogen	6,980	5,483	7,462	5,170	16.49	11.61	13.46	14.57	1.93	1.24	1.28	1.28
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Water Heating Equipment												
Centralized System	12,168	9,309	15,136	11,052	16.73	11.58	13.40	15.62	1.75	1.03	1.32	1.36
Distributed System	2,500	2,431	4,831	3,499	19.90	10.85	14.70	18.09	1.37	1.04	1.17	1.33
Combination of Centralized and Distributed System	3,226	3,716	4,658	2,187	15.93	11.93	13.45	13.47	1.78	1.59	1.37	1.04
Commercial Refrigeration Equipment (more than one may apply)												
Any Equipment	10,666	8,607	13,348	8,296	17.23	11.73	13.58	15.41	1.93	1.38	1.53	1.62
Walk-In Units	8,783	6,839	11,272	7,041	17.37	11.55	13.29	15.29	2.03	1.49	1.66	1.77
Cases or Cabinets	9,262	7,415	11,661	7,372	17.53	11.74	13.60	15.90	1.96	1.37	1.55	1.70
None	8,330	8,651	13,956	9,698	16.76	11.16	14.26	15.93	1.22	0.82	0.95	1.01

Table C6. Expenditures by Census Region for Sum of Major Fuels, 1999

	Sum of Major Fuel Expenditures (million dollars)				Sum of Major Fuel Expenditures (dollars) per Million Btu				Sum of Major Fuel Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Personal Computers												
None	856	1,565	2,413	1,643	16.53	11.92	15.24	14.11	0.56	0.59	0.65	0.98
1 to 4	3,535	3,733	5,502	3,289	19.20	11.76	14.39	16.97	1.54	0.99	1.16	1.08
5 to 9	1,356	1,314	3,886	1,895	20.50	12.50	12.79	17.33	1.67	1.00	1.35	1.23
10 to 19	2,718	1,345	3,416	2,156	16.04	12.16	14.42	19.82	1.55	0.86	1.26	1.45
20 to 49	2,582	1,879	3,175	2,146	18.77	10.64	14.69	17.27	1.85	0.97	1.23	0.99
50 to 99	1,320	1,814	2,004	1,789	14.43	10.28	13.60	15.36	1.46	1.11	1.06	1.25
100 to 249	2,350	2,460	2,626	1,701	15.81	11.37	13.65	13.01	1.47	1.35	1.21	1.40
250 or More	4,278	3,147	4,280	3,376	16.04	11.46	13.20	13.64	2.05	1.52	1.54	1.56
Photocopiers												
None	4,046	4,401	8,070	5,690	17.04	11.75	14.11	16.85	1.09	0.85	1.00	1.21
One	3,005	3,132	6,056	3,461	18.12	11.97	15.05	16.70	1.84	0.99	1.20	1.12
2 to 4	4,441	3,775	6,114	3,577	17.35	11.00	13.34	14.53	1.49	0.89	1.20	1.08
5 to 9	1,341	2,230	1,773	1,594	15.46	10.70	13.54	15.29	1.36	1.41	1.12	1.29
10 or More	6,163	3,721	5,292	3,672	16.66	11.59	13.31	14.58	2.01	1.43	1.43	1.53
Other Electronic Equipment (more than one may apply)												
Laser Printers	15,295	12,789	20,181	13,489	16.86	11.36	13.75	15.77	1.68	1.15	1.29	1.26
FAX Machines	17,569	15,211	23,897	15,599	17.31	11.42	14.00	15.76	1.67	1.14	1.27	1.29
Medical Diagnostic Equipment	820	1,049	1,956	1,153	10.04	9.56	10.94	11.82	2.24	1.79	2.05	1.96
Energy-Related Space Functions (more than one may apply)												
Commercial Food Preparation	8,892	7,237	12,582	6,502	16.38	11.52	13.49	14.65	1.82	1.27	1.55	1.41
Activities with Large Amounts of Hot Water	7,911	6,853	10,845	6,937	15.69	10.84	12.07	13.76	1.85	1.28	1.51	1.39
Building Shell Conservation Features (more than one may apply)												
Multipaned Windows	12,913	12,226	15,592	8,458	17.05	11.46	13.51	13.99	1.71	1.06	1.30	1.19
Tinted, Reflective, or Shading Glass	8,146	8,147	14,504	10,678	17.06	11.88	14.42	16.03	1.80	1.28	1.29	1.37
HVAC Conservation Features (more than one may apply)												
Variable Air-Volume System	6,824	6,656	8,907	6,845	16.80	11.52	13.71	14.22	1.87	1.37	1.46	1.44
Economizer Cycle	9,135	8,151	8,203	7,705	18.35	11.11	13.35	14.24	1.97	1.43	1.40	1.52
HVAC Maintenance	17,995	14,748	23,580	15,463	17.14	11.40	13.88	15.13	1.69	1.13	1.31	1.32
Energy Management and Control System (EMCS)	7,522	7,446	9,836	7,010	16.12	10.67	13.71	13.76	1.79	1.41	1.38	1.40
Lighting Conservation Features (more than one may apply)												
Specular Reflectors	8,708	5,277	8,127	5,970	16.87	11.32	14.26	16.37	1.79	1.23	1.27	1.35
Electronic Ballasts	13,871	12,392	17,368	12,368	16.88	11.36	14.34	15.91	1.64	1.20	1.26	1.30
Skylights or Atriums	5,476	5,375	6,723	4,135	16.23	11.26	12.62	15.25	1.48	1.20	1.10	1.04

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * HVAC=Heating, Ventilation, and Air Conditioning. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
All Buildings	1,381	2,300	2,053	15,013	30,575	21,750	92.0	75.2	94.4
Principal Building Activity									
Education	53	366	230	782	4,831	3,038	68.0	75.7	75.8
Food Sales	Q	88	Q	441	485	Q	Q	180.6	Q
Food Service	364	Q	Q	1,296	483	Q	281.0	Q	Q
Health Care	24	92	398	407	672	1,838	59.8	136.6	216.8
Inpatient	N	Q	379	N	Q	1,683	N	Q	225.1
Outpatient	24	44	Q	407	490	155	59.8	89.2	Q
Lodging	Q	243	145	405	2,336	1,780	152.4	104.2	81.2
Mercantile	171	328	225	1,971	4,630	3,797	86.5	70.9	59.3
Retail (Other Than Mall)	134	137	73	1,649	2,375	742	81.4	57.5	98.4
Enclosed and Strip Malls	Q	191	152	322	2,255	3,055	Q	84.9	49.8
Office	170	384	535	2,276	4,628	5,140	74.7	83.1	104.1
Public Assembly	65	176	118	983	2,267	1,143	66.5	77.5	103.2
Public Order and Safety	Q	57	Q	220	695	Q	Q	81.5	Q
Religious Worship	33	75	Q	1,003	2,353	Q	32.7	31.8	Q
Service	206	Q	Q	1,786	1,265	Q	115.4	140.7	Q
Warehouse and Storage	76	150	235	2,032	4,865	3,579	37.4	30.9	65.6
Other	Q	79	Q	386	445	390	Q	178.2	Q
Vacant	Q	Q	Q	1,024	619	265	Q	Q	Q
Year Constructed									
1919 or Before	104	114	Q	1,446	1,944	645	71.6	58.5	Q
1920 to 1945	142	168	150	1,574	2,815	2,056	90.4	59.8	73.0
1946 to 1959	153	314	207	2,802	4,175	2,150	54.7	75.3	96.1
1960 to 1969	266	358	351	2,093	4,951	3,822	127.1	72.4	91.7
1970 to 1979	249	398	397	2,448	5,447	3,945	101.9	73.1	100.6
1980 to 1989	219	542	453	2,303	6,634	4,994	95.3	81.7	90.6
1990 to 1999	247	405	439	2,347	4,610	4,137	105.2	87.8	106.1
Floors									
One	913	781	309	9,624	12,194	4,982	94.8	64.0	62.1
Two	329	721	281	3,791	9,410	3,785	86.7	76.6	74.1
Three	94	391	248	1,220	5,157	2,551	77.2	75.9	97.2
Four to Nine	45	384	788	378	3,661	6,141	119.1	105.0	128.3
Ten or More	N	Q	427	N	Q	4,291	N	Q	99.5
Census Region and Division									
Northeast	220	418	478	2,203	5,132	5,026	99.8	81.5	95.1
New England	41	120	118	575	1,784	1,376	70.7	67.4	85.7
Middle Atlantic	179	298	360	1,628	3,348	3,649	110.0	89.0	98.7
Midwest	338	532	639	3,880	7,090	5,792	87.2	75.0	110.3
East North Central	253	342	414	2,666	4,580	3,959	95.1	74.6	104.6
West North Central	85	190	225	1,214	2,510	1,832	70.0	75.6	122.7
South	523	829	609	5,594	11,028	6,864	93.5	75.2	88.7
South Atlantic	236	347	333	2,436	4,983	3,581	96.7	69.6	93.1
East South Central	106	268	98	1,159	2,872	1,190	91.7	93.4	82.2
West South Central	181	214	178	1,999	3,173	2,093	90.7	67.5	84.9
West	299	521	327	3,337	7,326	4,069	89.7	71.1	80.3
Mountain	104	153	100	1,105	2,314	1,160	93.7	66.2	85.9
Pacific	196	368	227	2,231	5,012	2,908	87.8	73.4	78.1
Climate Zone: 45-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	147	194	168	1,643	2,819	1,428	89.5	69.0	117.9
5,500-7,000 HDD	291	571	673	2,955	7,433	6,695	98.3	76.8	100.5
4,000-5,499 HDD	392	567	585	3,826	6,365	6,053	102.5	89.1	96.7
Fewer than 4,000 HDD	290	599	402	3,377	8,355	4,601	85.9	71.7	87.5
2,000 CDD or More and --									
Fewer than 4,000 HDD	261	368	224	3,211	5,604	2,972	81.2	65.7	75.3

Table C7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Workers (main shift)									
Fewer than 5	495	174	Q	7,978	5,713	630	62.0	30.4	Q
5 to 9	278	170	Q	2,833	3,099	393	98.2	54.8	Q
10 to 19	302	362	Q	2,582	4,708	737	116.9	76.9	Q
20 to 49	269	657	90	1,409	7,706	1,699	190.8	85.3	52.8
50 to 99	Q	490	210	Q	5,681	3,074	Q	86.3	68.2
100 to 249	Q	335	523	Q	2,832	5,457	Q	118.2	95.9
250 or More	N	112	1,177	N	837	9,759	N	133.7	120.6
Weekly Operating Hours									
39 or Fewer	81	64	Q	3,502	2,472	622	23.1	26.0	Q
40 to 48	265	378	104	4,216	6,969	1,920	62.8	54.2	54.0
49 to 60	253	510	305	3,017	7,423	3,759	83.8	68.8	81.0
61 to 84	270	415	365	2,072	5,376	5,009	130.5	77.1	72.9
85 to 167	361	393	303	1,320	3,943	3,853	273.3	99.8	78.6
Open Continuously	151	539	958	886	4,392	6,586	170.5	122.8	145.4
Ownership and Occupancy									
Nongovernment Owned	1,252	1,780	1,533	13,655	24,490	16,850	91.7	72.7	91.0
Owner Occupied	864	1,253	1,223	9,219	16,036	12,531	93.7	78.1	97.6
Nonowner Occupied	382	515	309	3,513	7,926	4,156	108.8	65.0	74.4
Unoccupied	Q	Q	Q	923	527	Q	Q	Q	Q
Government Owned	129	520	520	1,357	6,086	4,900	95.0	85.5	106.1
Federal	Q	61	139	Q	614	1,007	Q	99.7	137.7
State	Q	186	164	Q	1,697	1,488	Q	109.5	110.2
Local	84	273	217	977	3,775	2,405	86.2	72.4	90.2
Vacancy Status									
Completely Vacant	Q	Q	Q	574	290	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q	451	329	Q	Q	Q	Q
Partially Vacant	108	379	563	2,214	5,983	7,323	48.6	63.3	76.8
Not At All Vacant	1,259	1,911	1,484	11,775	23,974	14,161	106.9	79.7	104.8
Number of Establishments									
One	1,151	1,634	1,262	11,310	20,595	11,437	101.8	79.3	110.4
2 to 5	192	319	250	2,488	5,035	3,059	77.0	63.4	81.9
6 to 10	Q	185	97	176	2,179	1,219	Q	84.8	79.7
11 to 20	Q	108	141	Q	1,591	1,661	Q	67.9	85.1
More than 20	Q	42	301	Q	590	4,163	Q	71.0	72.2
Currently Unoccupied	Q	Q	Q	972	586	Q	Q	Q	Q
Energy Sources (more than one may apply)									
Electricity	1,380	2,300	2,053	14,001	30,052	21,663	98.6	76.5	94.8
Natural Gas	1,073	1,760	1,622	8,654	20,570	16,301	124.0	85.6	99.5
Fuel Oil	80	362	1,045	1,203	3,579	8,503	66.4	101.1	122.9
District Heat	Q	347	505	Q	2,007	3,613	Q	172.9	139.9
District Chilled Water	Q	150	259	Q	927	1,730	Q	162.0	149.6
Propane	105	134	191	1,621	2,637	2,032	64.7	50.9	93.8
Other	Q	65	98	469	890	963	Q	73.3	101.5
Space-Heating Energy Sources (more than one may apply)									
Electricity	542	1,074	1,018	5,459	15,069	11,763	99.3	71.3	86.5
Natural Gas	874	1,433	1,247	7,863	17,494	12,546	111.2	81.9	99.4
Fuel Oil	78	148	294	1,171	2,095	2,345	67.0	70.8	125.4
District Heat	Q	311	498	Q	1,828	3,545	Q	170.1	140.6
Propane	57	45	Q	1,157	1,295	Q	49.1	35.0	Q
Other	Q	26	Q	285	452	Q	Q	57.4	Q

Table C7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Primary Space-Heating Energy Source									
Electricity	312	627	407	3,062	8,667	5,898	101.7	72.3	69.1
Natural Gas	821	1,184	1,058	7,373	14,997	10,360	111.3	79.0	102.1
Fuel Oil	67	108	96	1,038	1,567	1,113	64.9	69.0	86.1
District Heat	Q	277	458	Q	1,645	3,301	Q	168.4	138.8
Propane	Q	20	Q	1,084	980	Q	Q	20.1	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Sources (more than one may apply)									
Electricity	1,136	1,997	1,805	10,723	25,930	18,893	106.0	77.0	95.5
Natural Gas	Q	61	68	537	907	469	Q	67.1	145.1
District Chilled Water	Q	150	259	Q	927	1,730	Q	162.0	149.6
Water-Heating Energy Sources (more than one may apply)									
Electricity	442	721	672	4,593	10,985	8,593	96.2	65.6	78.3
Natural Gas	729	1,180	1,052	4,923	13,747	10,526	148.1	85.9	99.9
Fuel Oil	Q	90	112	333	880	1,005	Q	102.6	111.1
District Heat	Q	239	404	Q	1,249	2,786	Q	191.3	144.9
Propane	Q	29	Q	436	777	Q	Q	37.6	Q
Cooking Energy Sources (more than one may apply)									
Electricity	280	434	806	1,148	4,838	7,747	244.1	89.7	104.0
Natural Gas	351	554	1,023	1,479	5,412	9,893	237.0	102.3	103.4
Propane	Q	54	50	371	735	648	Q	72.9	77.7
Energy End Uses (more than one may apply)									
Buildings with Space Heating	1,277	2,227	2,024	12,774	28,026	20,803	100.0	79.5	97.3
Buildings with Cooling	1,201	2,150	1,994	11,092	27,047	20,335	108.3	79.5	98.0
Buildings with Water Heating	1,214	2,088	1,960	10,028	25,974	20,112	121.0	80.4	97.5
Buildings with Cooking	499	834	1,346	2,367	8,947	13,367	210.6	93.2	100.7
Buildings with Manufacturing	26	100	151	553	1,509	1,064	46.8	66.5	142.1
Buildings with Electricity Generation	Q	401	1,021	378	3,166	8,339	Q	126.7	122.4
Percent of Floorspace Heated									
Not Heated	Q	73	28	2,239	2,550	947	Q	28.5	29.9
1 to 50	82	149	102	2,210	3,567	1,816	37.1	41.8	56.2
51 to 99	245	398	336	1,927	5,033	3,785	127.3	79.1	88.7
100	950	1,680	1,587	8,636	19,426	15,202	109.9	86.5	104.4
Percent of Floorspace Cooled									
Not Cooled	180	150	Q	3,921	3,528	1,415	45.8	42.6	41.9
1 to 50	243	522	356	3,318	8,920	4,608	73.3	58.6	77.3
51 to 99	312	606	825	2,273	7,021	7,673	137.3	86.3	107.6
100	646	1,022	812	5,501	11,106	8,054	117.4	92.0	100.8
Percent Lit When Open									
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	204	208	40	3,075	4,719	1,392	66.5	44.0	28.4
51 to 99	500	765	728	4,113	9,755	6,797	121.6	78.4	107.0
100	660	1,311	1,284	6,092	14,839	13,302	108.4	88.4	96.5
Building Never Open/ Electricity Not Used	Q	Q	Q	1,660	1,182	Q	Q	Q	Q

Table C7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Percent Lit When Closed									
Zero	451	563	156	7,199	10,435	3,137	62.6	53.9	49.8
1 to 50	641	1,100	863	5,406	14,482	11,062	118.6	76.0	78.0
51 to 100	Q	97	76	532	750	878	Q	130.0	86.4
Building Never Closed/ Electricity Not Used	151	540	958	1,876	4,909	6,672	80.7	109.9	143.5
Heating Equipment (more than one may apply)									
Heat Pumps	145	357	360	1,424	4,158	3,341	101.8	85.8	107.9
Furnaces	388	423	271	5,118	6,438	2,892	75.8	65.7	93.7
Individual Space Heaters	218	538	618	2,533	7,732	7,084	86.1	69.6	87.2
District Heat	Q	311	498	Q	1,828	3,545	Q	170.1	140.6
Boilers	175	702	1,033	1,504	8,336	9,683	116.1	84.3	106.7
Packaged Heating Units	529	927	913	4,080	11,951	9,713	129.6	77.5	94.0
Other	Q	105	246	515	1,422	2,135	Q	73.7	115.2
Cooling Equipment (more than one may apply)									
Residential-Type Central Air Conditioners	186	222	263	2,496	3,501	2,333	74.7	63.4	112.8
Heat Pumps	Q	358	367	1,406	4,167	3,574	103.6	85.9	102.8
Individual Air Conditioners	208	474	515	2,358	6,679	5,239	88.0	70.9	98.2
District Chilled Water	Q	150	259	Q	927	1,730	Q	162.0	149.6
Central Chillers	Q	385	1,176	Q	3,215	9,517	Q	119.7	123.5
Packaged Air Conditioning Units	739	1,356	1,295	5,810	17,315	13,402	127.2	78.3	96.6
Swamp Coolers	Q	80	77	435	1,009	775	Q	79.3	99.6
Other	Q	41	Q	Q	452	707	Q	90.8	Q
Main Equipment Replaced Since 1995 (more than one may apply)									
Heating	326	514	245	3,082	6,831	3,307	105.8	75.2	74.1
Cooling	351	659	525	3,037	8,726	5,628	115.6	75.5	93.3
Lighting Equipment Types (more than one may apply)									
Incandescent	752	1,305	1,384	6,993	16,939	14,223	107.5	77.1	97.3
Standard Fluorescent	1,195	2,201	2,005	11,876	27,684	20,784	100.6	79.5	96.5
Compact Fluorescent	262	699	1,201	1,846	7,480	11,340	141.9	93.4	105.9
High Intensity Discharge	113	632	1,158	908	7,026	11,290	124.5	89.9	102.6
Halogen	250	596	959	1,590	6,536	9,800	157.3	91.2	97.8
Other	Q	Q	Q	Q	394	464	Q	Q	Q
Water Heating Equipment									
Centralized System	980	1,414	974	7,891	17,503	10,186	124.2	80.8	95.6
Distributed System	153	329	390	1,781	4,667	4,450	86.1	70.4	87.6
Combination of Centralized and Distributed System	Q	345	597	356	3,805	5,476	Q	90.7	109.0
Commercial Refrigeration Equipment (more than one may apply)									
Any Equipment	544	867	1,463	2,505	9,110	14,036	217.0	95.2	104.2
Walk-In Units	486	643	1,278	1,794	5,926	11,992	270.6	108.4	106.6
Cases or Cabinets	506	715	1,260	2,290	7,409	12,302	221.0	96.5	102.4
None	837	1,433	590	12,507	21,465	7,714	66.9	66.7	76.4

Table C7. Consumption and Gross Energy Intensity by Building Size for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Personal Computers									
None	363	89	6	5,970	2,974	640	60.7	30.0	Q
1 to 4	580	446	52	5,315	7,464	1,074	109.1	59.7	48.5
5 to 9	198	345	41	1,688	4,200	641	117.5	82.1	64.3
10 to 19	182	347	96	1,534	4,084	1,896	118.9	85.0	50.7
20 to 49	Q	370	233	476	4,721	2,890	Q	78.3	80.6
50 to 99	Q	291	238	Q	3,514	2,327	Q	82.8	102.1
100 to 249	Q	309	377	Q	2,878	3,936	Q	107.2	95.8
250 or More	N	103	1,010	N	741	8,347	N	139.7	120.9
Photocopiers									
None	882	556	83	9,913	9,692	2,025	89.0	57.4	41.1
One	375	558	104	3,724	7,537	1,667	100.7	74.1	62.4
2 to 4	110	760	434	1,165	8,936	5,519	94.5	85.0	78.6
5 to 9	Q	206	311	Q	2,236	2,937	Q	92.0	105.9
10 or More	N	220	1,121	N	2,173	9,601	N	101.2	116.7
Other Electronic Equipment (more than one may apply)									
Laser Printers	595	1,797	1,964	5,396	21,598	19,573	110.2	83.2	100.3
FAX Machines	973	2,047	2,024	8,525	25,429	20,810	114.1	80.5	97.2
Medical Diagnostic Equipment	Q	70	384	265	527	1,700	Q	133.2	225.5
Energy-Related Space Functions (more than one may apply)									
Commercial Food Preparation	464	766	1,317	2,134	8,202	12,992	217.5	93.4	101.4
Activities with Large Amounts of Hot Water	456	898	1,185	1,823	8,834	11,136	250.3	101.6	106.4
Building Shell Conservation Features (more than one may apply)									
Multipaned Windows	741	1,364	1,479	6,858	16,743	14,593	108.0	81.5	101.3
Tinted, Reflective, or Shading Glass	467	1,023	1,346	3,954	12,244	13,717	118.1	83.5	98.1
HVAC Conservation Features (more than one may apply)									
Variable Air-Volume System	211	699	1,205	1,691	6,854	10,841	124.8	102.0	111.2
Economizer Cycle	238	746	1,403	1,438	7,290	12,528	165.4	102.4	112.0
HVAC Maintenance	966	2,096	2,002	8,361	24,704	20,330	115.6	84.8	98.5
Energy Management and Control System (EMCS)	123	791	1,477	987	7,643	12,983	124.3	103.5	113.8
Lighting Conservation Features (more than one may apply)									
Specular Reflectors	298	657	963	2,560	7,640	9,794	116.4	85.9	98.3
Electronic Ballasts	696	1,451	1,754	6,780	17,991	17,264	102.7	80.6	101.6
Skylights or Atriums	133	537	948	1,533	6,945	9,808	86.8	77.4	96.7

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * HVAC=Heating, Ventilation, and Air Conditioning. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
All Buildings	1,410	3,234	1,090	19,606	36,638	11,094	71.9	88.3	98.3
Building Floorspace (Square Feet)									
1,001 to 5,000	218	406	148	2,478	3,137	1,159	88.0	129.4	128.0
5,001 to 10,000	181	329	98	3,344	3,706	1,188	54.1	88.7	82.8
10,001 to 25,000	243	423	77	3,965	6,079	1,110	61.3	69.5	69.5
25,001 to 50,000	188	372	132	2,505	5,167	1,638	75.0	72.0	80.6
50,001 to 100,000	166	504	195	2,463	5,786	1,862	67.3	87.2	104.9
100,001 to 200,000	126	477	169	1,782	4,827	1,662	70.4	98.8	102.0
200,001 to 500,000	125	371	Q	1,751	3,756	1,344	71.6	98.8	121.5
Over 500,000	163	352	106	1,318	4,179	1,131	123.8	84.3	93.8
Principal Building Activity									
Education	250	307	92	3,247	4,165	1,239	77.0	73.7	74.1
Food Sales	Q	87	80	196	443	355	Q	196.9	224.3
Food Service	Q	229	Q	608	952	Q	Q	240.3	Q
Health Care	101	356	58	548	1,897	473	183.7	187.7	122.7
Inpatient	Q	307	Q	434	1,277	Q	Q	240.4	Q
Outpatient	Q	49	Q	Q	620	319	Q	79.0	Q
Lodging	85	300	65	808	2,996	716	104.9	100.2	90.3
Mercantile	165	391	169	2,582	5,786	2,030	63.8	67.5	83.1
Retail (Other Than Mall)	113	130	101	1,901	1,726	1,139	59.5	75.2	88.7
Enclosed and Strip Malls	52	261	68	681	4,060	891	75.7	64.2	76.0
Office	254	693	143	2,907	7,307	1,830	87.2	94.8	78.0
Public Assembly	108	180	72	1,395	2,262	736	77.4	79.4	97.2
Public Order and Safety	Q	38	Q	392	550	227	Q	68.5	Q
Religious Worship	42	57	Q	1,301	1,748	357	32.6	32.5	Q
Service	109	286	Q	1,283	1,768	336	84.8	161.9	Q
Warehouse and Storage	63	231	Q	2,738	5,660	2,079	22.9	40.8	Q
Other	Q	69	Q	247	607	367	Q	112.8	Q
Vacant	19	Q	Q	1,354	497	Q	14.2	Q	Q
Floors									
One	311	1,130	562	5,601	15,567	5,632	55.6	72.6	99.7
Two	335	763	233	5,218	9,110	2,657	64.2	83.7	87.6
Three	288	365	81	4,143	3,810	974	69.5	95.7	82.7
Four to Nine	335	706	176	3,520	5,341	1,319	95.2	132.3	133.4
Ten or More	140	270	39	1,124	2,809	512	124.8	96.1	76.7
Census Region and Division									
Northeast	432	536	148	5,041	5,944	1,376	85.6	90.2	107.8
New England	93	150	Q	1,316	1,986	433	71.0	75.4	Q
Middle Atlantic	338	386	113	3,725	3,957	943	90.8	97.6	119.5
Midwest	478	746	285	6,150	7,778	2,834	77.7	95.9	100.6
East North Central	338	456	215	4,481	4,842	1,882	75.4	94.3	114.1
West North Central	140	289	71	1,669	2,936	952	83.7	98.6	74.1
South	281	1,259	421	5,163	13,858	4,464	54.4	90.9	94.4
South Atlantic	113	581	222	2,055	6,639	2,306	55.1	87.5	96.1
East South Central	74	313	85	1,038	3,132	1,050	71.7	99.9	81.2
West South Central	93	365	114	2,070	4,087	1,107	45.1	89.4	103.3
West	219	692	235	3,252	9,059	2,420	67.5	76.4	97.3
Mountain	90	209	57	1,267	2,609	704	71.1	80.1	81.3
Pacific	129	483	178	1,986	6,450	1,716	65.1	74.9	103.8
Climate Zone: 45-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	135	283	93	1,936	3,007	948	69.5	94.1	97.6
5,500-7,000 HDD	508	736	291	6,196	8,277	2,610	82.0	88.9	111.3
4,000-5,499 HDD	458	839	248	5,491	8,220	2,532	83.3	102.1	97.8
Fewer than 4,000 HDD	180	807	304	3,303	9,822	3,209	54.5	82.2	94.8
2,000 CDD or More and --									
Fewer than 4,000 HDD	129	568	155	2,680	7,313	1,794	48.3	77.7	86.5

Table C8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Workers (main shift)									
Fewer than 5	246	331	100	6,570	6,039	1,712	37.5	54.8	58.5
5 to 9	148	256	61	2,027	3,470	829	72.9	73.8	73.8
10 to 19	231	343	117	2,781	4,093	1,153	83.2	83.7	101.5
20 to 49	233	584	200	2,953	5,772	2,089	78.7	101.1	95.6
50 to 99	141	444	145	1,638	5,660	1,601	86.2	78.5	90.3
100 to 249	157	502	205	1,580	4,990	1,786	99.6	100.6	115.0
250 or More	253	774	262	2,057	6,614	1,925	123.1	117.0	136.1
Weekly Operating Hours									
39 or Fewer	64	91	Q	3,277	2,809	511	19.7	32.4	Q
40 to 48	263	385	98	4,942	6,392	1,771	53.3	60.2	55.4
49 to 60	297	582	189	4,259	7,649	2,292	69.7	76.1	82.4
61 to 84	276	631	143	2,850	7,422	2,186	97.0	85.0	65.5
85 to 167	197	595	265	1,819	5,315	1,981	108.3	111.9	133.9
Open Continuously	312	950	386	2,460	7,051	2,352	126.7	134.8	164.1
Ownership and Occupancy									
Nongovernment Owned	1,026	2,655	884	15,321	30,535	9,138	67.0	86.9	96.7
Owner Occupied	795	1,936	609	10,934	20,654	6,198	72.7	93.8	98.3
Nonowner Occupied	225	707	275	3,546	9,233	2,817	63.5	76.6	97.5
Unoccupied	Q	Q	Q	842	649	Q	Q	Q	Q
Government Owned	384	579	206	4,285	6,102	1,956	89.6	94.8	105.4
Federal	102	86	Q	909	644	243	112.2	133.2	Q
State	123	190	64	1,181	1,655	554	103.8	114.5	116.0
Local	159	303	112	2,196	3,803	1,158	72.6	79.8	96.5
Vacancy Status									
Completely Vacant	Q	Q	Q	665	247	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q	689	250	Q	Q	Q	Q
Partially Vacant	259	597	193	3,874	8,829	2,817	66.8	67.6	68.6
Not At All Vacant	1,132	2,626	896	14,378	27,312	8,219	78.7	96.1	109.0
Number of Establishments									
One	1,017	2,202	828	13,375	22,346	7,622	76.0	98.5	108.6
2 to 5	209	428	125	3,372	5,464	1,745	61.9	78.2	71.5
6 to 10	69	199	35	679	2,410	485	102.1	82.7	72.2
11 to 20	Q	166	46	506	2,256	498	Q	73.6	92.3
More than 20	68	225	Q	711	3,479	621	95.8	64.8	Q
Currently Unoccupied	Q	Q	Q	963	683	Q	Q	Q	Q
Energy Sources (more than one may apply)									
Electricity	1,409	3,234	1,090	18,788	35,920	11,007	75.0	90.0	99.0
Natural Gas	1,077	2,464	914	13,063	24,386	8,076	82.5	101.0	113.2
Fuel Oil	332	890	265	3,588	7,590	2,108	92.4	117.2	125.8
District Heat	320	467	Q	2,338	2,876	677	136.9	162.3	Q
District Chilled Water	107	246	Q	794	1,550	407	134.5	158.6	Q
Propane	63	246	Q	1,410	3,586	1,295	44.5	68.7	Q
Other	74	95	Q	765	1,204	353	96.6	78.7	Q
Space-Heating Energy Sources (more than one may apply)									
Electricity	550	1,531	552	7,313	19,045	5,933	75.2	80.4	93.1
Natural Gas	877	1,968	709	11,297	19,947	6,658	77.6	98.7	106.5
Fuel Oil	172	311	38	2,309	2,870	432	74.6	108.3	87.4
District Heat	317	420	Q	2,309	2,726	499	137.4	154.2	Q
Propane	24	75	Q	706	1,414	608	34.0	53.0	Q
Other	Q	Q	Q	382	474	Q	Q	Q	Q

Table C8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Primary Space-Heating Energy Source									
Electricity	187	809	350	2,769	11,150	3,708	67.4	72.6	94.5
Natural Gas	791	1,675	597	10,205	16,847	5,677	77.5	99.4	105.2
Fuel Oil	114	137	Q	1,753	1,707	Q	65.2	80.5	Q
District Heat	283	385	Q	2,151	2,497	428	131.3	154.4	Q
Propane	12	48	Q	519	1,074	514	23.4	44.7	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Sources (more than one may apply)									
Electricity	1,133	2,832	973	14,026	31,749	9,770	80.8	89.2	99.6
Natural Gas	Q	118	Q	470	1,028	416	Q	114.8	Q
District Chilled Water	107	246	Q	794	1,550	407	134.5	158.6	Q
Water-Heating Energy Sources (more than one may apply)									
Electricity	324	1,093	418	4,820	14,952	4,399	67.1	73.1	95.1
Natural Gas	713	1,657	591	8,411	15,573	5,211	84.7	106.4	113.4
Fuel Oil	77	135	Q	971	1,049	Q	79.3	128.3	Q
District Heat	229	366	Q	1,696	2,109	377	134.8	173.6	Q
Propane	Q	67	Q	Q	863	Q	Q	77.7	Q
Cooking Energy Sources (more than one may apply)									
Electricity	326	915	279	3,024	8,251	2,458	107.8	110.9	113.5
Natural Gas	499	1,035	394	4,690	9,030	3,065	106.3	114.6	128.6
Propane	Q	116	Q	287	1,137	330	Q	102.2	Q
Energy End Uses (more than one may apply)									
Buildings with Space Heating	1,393	3,065	1,070	17,554	33,448	10,600	79.4	91.6	101.0
Buildings with Cooling	1,230	3,053	1,061	14,895	33,224	10,355	82.6	91.9	102.5
Buildings with Water Heating	1,243	3,005	1,014	14,928	31,740	9,446	83.3	94.7	107.3
Buildings with Cooking	682	1,476	521	6,519	13,759	4,403	104.7	107.2	118.4
Buildings with Manufacturing	72	154	51	933	1,709	485	77.1	90.2	105.9
Buildings with Electricity Generation	254	890	349	1,992	7,149	2,741	127.7	124.4	127.5
Percent of Floorspace Heated									
Not Heated	17	168	Q	2,052	3,190	493	8.2	52.7	Q
1 to 50	95	184	55	2,645	3,749	1,198	35.8	48.9	45.6
51 to 99	235	547	197	3,226	5,742	1,777	72.9	95.3	110.8
100	1,063	2,335	819	11,683	23,957	7,625	91.0	97.5	107.4
Percent of Floorspace Cooled									
Not Cooled	179	181	Q	4,711	3,414	739	38.1	52.9	Q
1 to 50	379	528	215	6,241	8,052	2,553	60.7	65.6	84.2
51 to 99	429	978	336	4,052	9,818	3,096	105.9	99.7	108.4
100	423	1,547	510	4,603	15,354	4,706	91.8	100.7	108.4
Percent Lit When Open									
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	184	183	Q	4,301	3,928	957	42.8	46.7	Q
51 to 99	564	1,162	266	6,025	11,398	3,242	93.6	101.9	82.2
100	652	1,865	738	7,583	19,981	6,670	86.0	93.3	110.7
Building Never Open/ Electricity Not Used	9	Q	Q	1,681	1,220	Q	5.3	Q	Q

Table C8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Percent Lit When Closed									
Zero	319	642	209	6,811	10,503	3,458	46.8	61.1	60.6
1 to 50	727	1,512	365	9,247	17,259	4,444	78.6	87.6	82.2
51 to 100	Q	129	129	272	1,134	753	Q	114.0	171.7
Building Never Closed/ Electricity Not Used	312	950	386	3,277	7,742	2,438	95.3	122.8	158.3
Heating Equipment (more than one may apply)									
Heat Pumps	148	527	187	1,764	5,363	1,796	83.8	98.3	104.2
Furnaces	294	569	218	4,847	7,215	2,387	60.7	78.9	91.5
Individual Space Heaters	375	766	233	5,366	9,268	2,715	70.0	82.6	85.8
District Heat	317	420	Q	2,309	2,726	499	137.4	154.2	Q
Boilers	533	1,083	295	6,424	10,620	2,479	83.0	102.0	118.9
Packaged Heating Units	358	1,404	606	4,820	15,239	5,684	74.4	92.1	106.6
Other	88	189	Q	1,030	2,257	786	85.3	83.6	Q
Cooling Equipment (more than one may apply)									
Residential-Type Central Air Conditioners	188	381	103	2,573	4,483	1,274	72.9	85.1	80.5
Heat Pumps	153	544	174	1,818	5,624	1,705	84.3	96.7	101.8
Individual Air Conditioners	489	572	135	6,113	6,687	1,476	80.1	85.5	91.5
District Chilled Water	107	246	Q	794	1,550	407	134.5	158.6	Q
Central Chillers	326	951	322	2,567	8,114	2,229	127.0	117.2	144.3
Packaged Air Conditioning Units	679	2,009	702	8,037	21,665	6,825	84.5	92.7	102.9
Swamp Coolers	Q	141	Q	509	1,371	339	Q	102.5	Q
Other	Q	89	Q	254	951	Q	Q	93.4	Q
Main Equipment Replaced Since 1995 (more than one may apply)									
Heating	306	702	76	4,160	8,266	794	73.7	85.0	95.5
Cooling	464	970	101	5,340	11,107	943	86.9	87.4	106.9
Lighting Equipment Types (more than one may apply)									
Incandescent	938	1,975	528	11,393	21,385	5,377	82.3	92.3	98.2
Standard Fluorescent	1,319	3,094	988	16,693	33,658	9,993	79.0	91.9	98.9
Compact Fluorescent	449	1,292	421	4,483	12,023	4,160	100.2	107.5	101.2
High Intensity Discharge	405	1,025	473	4,193	10,566	4,464	96.6	97.0	105.9
Halogen	378	1,058	368	3,653	10,699	3,574	103.6	98.9	103.0
Other	Q	Q	Q	Q	460	392	Q	Q	Q
Water Heating Equipment									
Centralized System	831	1,930	606	10,284	19,732	5,564	80.8	97.8	108.9
Distributed System	160	492	Q	2,269	6,505	2,125	70.4	75.6	103.7
Combination of Centralized and Distributed System	252	583	187	2,376	5,503	1,758	106.2	105.9	106.6
Commercial Refrigeration Equipment (more than one may apply)									
Any Equipment	643	1,645	586	6,180	14,877	4,595	104.1	110.6	127.5
Walk-In Units	496	1,407	503	4,071	11,957	3,685	121.9	117.7	136.5
Cases or Cabinets	573	1,415	493	5,580	12,458	3,963	102.7	113.6	124.4
None	766	1,589	504	13,427	21,761	6,498	57.1	73.0	77.6

Table C8. Consumption and Gross Energy Intensity by Year Constructed for Sum of Major Fuels, 1999

	Sum of Major Fuel Consumption (trillion Btu)			Total Floorspace of Buildings (million square feet)			Energy Intensity for Sum of Major Fuels (thousand Btu/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Personal Computers									
None	166	233	Q	4,415	4,071	1,098	37.6	57.4	Q
1 to 4	353	571	154	5,294	6,989	1,569	66.6	81.7	98.3
5 to 9	101	335	148	1,534	3,803	1,191	65.9	88.1	124.4
10 to 19	134	359	134	1,615	4,251	1,647	82.7	84.4	81.0
20 to 49	156	353	145	2,103	4,183	1,801	74.4	84.5	80.4
50 to 99	116	257	Q	1,349	3,243	1,276	86.0	79.2	124.7
100 to 249	121	430	138	1,216	4,356	1,245	99.3	98.7	110.5
250 or More	263	695	154	2,079	5,741	1,267	126.7	121.1	121.6
Photocopiers									
None	420	834	268	8,278	10,663	2,690	50.8	78.2	99.5
One	308	512	217	3,928	6,643	2,358	78.5	77.1	92.1
2 to 4	279	780	245	4,033	8,666	2,921	69.2	90.0	83.7
5 to 9	59	315	157	620	3,390	1,373	95.2	92.8	114.1
10 or More	343	793	204	2,747	7,275	1,752	124.9	109.1	116.5
Other Electronic Equipment (more than one may apply)									
Laser Printers	983	2,472	901	11,145	26,657	8,765	88.2	92.8	102.8
FAX Machines	1,169	2,850	1,024	14,063	30,817	9,883	83.1	92.5	103.7
Medical Diagnostic Equipment	76	340	Q	374	1,731	388	202.7	196.4	Q
Energy-Related Space Functions (more than one may apply)									
Commercial Food Preparation	642	1,413	492	6,145	13,063	4,120	104.5	108.2	119.5
Activities with Large Amounts of Hot Water	578	1,510	452	5,274	12,776	3,743	109.6	118.1	120.8
Building Shell Conservation Features (more than one may apply)									
Multipaned Windows	787	2,030	765	9,567	20,611	8,016	82.3	98.5	95.5
Tinted, Reflective, or Shading Glass	456	1,772	608	5,252	18,328	6,335	86.7	96.7	95.9
HVAC Conservation Features (more than one may apply)									
Variable Air-Volume System	344	1,234	538	3,092	11,623	4,672	111.1	106.1	115.2
Economizer Cycle	392	1,439	556	3,541	13,151	4,563	110.6	109.5	121.9
HVAC Maintenance	1,167	2,889	1,008	13,569	30,161	9,665	86.0	95.8	104.3
Energy Management and Control System (EMCS)	479	1,332	580	4,318	12,221	5,074	111.0	109.0	114.4
Lighting Conservation Features (more than one may apply)									
Specular Reflectors	412	1,120	385	4,447	11,436	4,111	92.7	98.0	93.6
Electronic Ballasts	904	2,190	807	10,536	23,685	7,815	85.8	92.4	103.3
Skylights or Atriums	294	956	369	3,758	10,865	3,664	78.1	88.0	100.8

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * HVAC=Heating, Ventilation, and Air Conditioning. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C9. Total Electricity Consumption and Expenditures, 1999

	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures
				Primary	Site		
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	Total (million dollars)
All Buildings	4,395	65,716	15.0	9,352	3,098	908	66,424
Building Floorspace (Square Feet)							
1,001 to 5,000	2,186	6,280	2.9	1,254	415	122	10,262
5,001 to 10,000	1,036	7,721	7.5	853	283	83	7,146
10,001 to 25,000	688	10,843	15.8	1,118	370	109	8,663
25,001 to 50,000	253	9,175	36.3	1,121	371	109	8,188
50,001 to 100,000	143	10,034	70.0	1,491	494	145	10,023
100,001 to 200,000	59	8,246	139.5	1,361	451	132	8,555
200,001 to 500,000	23	6,790	296.0	1,028	340	100	6,432
Over 500,000	7	6,628	929.0	1,127	373	109	7,155
Principal Building Activity							
Education	327	8,651	26.4	777	257	75	5,820
Food Sales	173	993	5.7	498	165	48	3,359
Food Service	349	1,851	5.3	653	216	63	5,082
Health Care	127	2,918	22.9	701	232	68	4,268
Inpatient	11	1,865	168.2	520	172	51	2,948
Outpatient	116	1,053	9.1	181	60	18	1,320
Lodging	153	4,521	29.5	591	196	57	4,266
Mercantile	667	10,398	15.6	1,573	521	153	11,851
Retail (Other Than Mall)	534	4,766	8.9	666	221	65	5,166
Enclosed and Strip Malls	133	5,631	42.2	907	301	88	6,685
Office	738	12,043	16.3	2,314	767	225	15,683
Public Assembly	299	4,340	14.5	577	191	56	3,983
Public Order and Safety	64	1,030	16.0	122	40	12	805
Religious Worship	307	3,405	11.1	126	42	12	1,041
Service	472	3,358	7.1	417	138	41	3,108
Warehouse and Storage	496	9,879	19.9	664	220	64	4,829
Other	98	1,217	12.4	306	101	30	2,063
Vacant	123	1,112	9.0	31	10	3	265
Year Constructed							
1919 or Before	363	3,714	10.2	275	91	27	2,170
1920 to 1945	480	6,281	13.1	556	184	54	4,174
1946 to 1959	716	8,794	12.3	934	310	91	6,989
1960 to 1969	628	10,686	17.0	1,413	468	137	10,250
1970 to 1979	758	11,750	15.5	1,875	621	182	13,461
1980 to 1989	781	13,485	17.3	2,280	755	221	15,777
1990 to 1999	669	11,007	16.5	2,020	669	196	13,604
Census Region and Division							
Northeast	639	11,964	18.7	1,638	543	159	15,133
New England	190	3,615	19.0	399	132	39	3,783
Middle Atlantic	449	8,349	18.6	1,239	411	120	11,351
Midwest	1,113	16,389	14.7	2,000	662	194	12,933
East North Central	730	10,940	15.0	1,296	429	126	8,798
West North Central	383	5,449	14.2	704	233	68	4,135
South	1,689	23,076	13.7	3,766	1,247	366	23,275
South Atlantic	711	10,817	15.2	1,851	613	180	11,968
East South Central	383	5,149	13.4	817	271	79	4,830
West South Central	595	7,110	11.9	1,098	364	107	6,476
West	954	14,287	15.0	1,948	645	189	15,083
Mountain	275	4,292	15.6	530	175	51	3,365
Pacific	679	9,995	14.7	1,418	470	138	11,718

Table C9. Total Electricity Consumption and Expenditures, 1999

	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures
				Primary	Site		
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	Total (million dollars)
Climate Zone: 45-Year Average							
Under 2,000 CDD and --							
More than 7,000 HDD	491	5,750	11.7	665	220	65	4,505
5,500-7,000 HDD	924	16,706	18.1	2,027	671	197	15,163
4,000-5,499 HDD	1,029	15,792	15.4	2,385	790	232	17,164
Fewer than 4,000 HDD	1,070	15,922	14.9	2,496	827	242	17,847
2,000 CDD or More and --							
Fewer than 4,000 HDD	882	11,546	13.1	1,779	589	173	11,745
Workers (main shift)							
Fewer than 5	2,121	12,750	6.0	1,009	334	98	8,046
5 to 9	800	6,274	7.8	654	217	64	5,462
10 to 19	683	8,028	11.8	1,055	350	102	8,439
20 to 49	487	10,814	22.2	1,530	507	149	11,068
50 to 99	174	8,898	51.1	1,260	418	122	9,122
100 to 249	90	8,356	92.4	1,534	508	149	9,683
250 or More	39	10,595	270.0	2,309	765	224	14,604
Weekly Operating Hours							
39 or Fewer	770	5,314	6.9	205	68	20	1,717
40 to 48	1,147	13,070	11.4	1,169	387	114	8,799
49 to 60	980	14,186	14.5	1,754	581	170	12,980
61 to 84	649	12,381	19.1	1,776	588	172	13,082
85 to 167	459	8,930	19.5	1,833	607	178	13,107
Open Continuously	390	11,835	30.3	2,614	866	254	16,739
Ownership and Occupancy							
Nongovernment Owned	3,898	53,640	13.8	7,651	2,534	743	55,086
Owner Occupied	2,747	37,506	13.7	5,455	1,807	530	38,540
Nonowner Occupied	1,069	15,441	14.4	2,173	720	211	16,358
Unoccupied	Q	693	Q	Q	Q	Q	Q
Government Owned	498	12,076	24.3	1,701	563	165	11,338
Federal	54	1,711	31.9	370	123	36	2,195
State	83	3,382	40.8	484	160	47	3,189
Local	361	6,983	19.3	846	280	82	5,955
Vacancy Status							
Completely Vacant	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant	79	756	9.5	13	4	1	121
Partially Vacant	636	15,093	23.7	1,955	648	190	13,761
Not At All Vacant	3,636	49,511	13.6	7,366	2,440	715	52,397
Number of Establishments							
One	3,437	42,839	12.5	6,102	2,021	592	43,175
2 to 5	680	10,442	15.3	1,294	429	126	9,297
6 to 10	113	3,568	31.5	611	202	59	4,492
11 to 20	48	3,260	68.0	555	184	54	3,846
More than 20	27	4,809	178.1	764	253	74	5,402
Currently Unoccupied	90	797	8.9	26	9	3	211
Energy Sources (more than one may apply)							
Electricity	4,395	65,716	15.0	9,352	3,098	908	66,424
Natural Gas	2,663	45,496	17.1	6,616	2,191	642	46,431
Fuel Oil	434	13,277	30.6	2,331	772	226	15,165
District Heat	117	5,891	50.2	1,083	359	105	6,841
District Chilled Water	50	2,750	55.4	571	189	55	3,224
Propane	451	6,290	14.0	791	262	77	6,286
Other	153	2,322	15.2	341	113	33	2,512

Table C9. Total Electricity Consumption and Expenditures, 1999

	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures
				Primary	Site		
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	Total (million dollars)
Space-Heating Energy Source							
Electricity	1,880	32,291	17.2	5,135	1,701	499	35,332
Electricity Main	1,128	17,627	15.6	3,114	1,031	302	21,622
Electricity Secondary	752	14,664	19.5	2,021	670	196	13,710
Other Excluding Electricity	2,128	29,274	13.8	3,815	1,264	370	27,832
Buildings without Heating	387	4,151	10.7	402	133	39	3,261
Primary Space-Heating Energy Source							
Electricity	1,128	17,627	15.6	3,114	1,031	302	21,622
Natural Gas	2,182	32,701	15.0	4,353	1,442	423	30,654
Fuel Oil	302	3,711	12.3	305	101	30	2,923
District Heat	77	5,077	66.0	928	308	90	5,784
Propane	282	2,107	7.5	216	72	21	1,960
Other	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Source							
Electricity	3,450	55,545	16.1	8,503	2,816	825	60,281
Other Excluding Electricity	109	2,929	26.8	543	180	53	3,564
Buildings without Cooling	836	7,242	8.7	306	101	30	2,579
Water-Heating Energy Source							
Electricity	1,546	24,171	15.6	3,896	1,290	378	27,581
Other Excluding Electricity	1,693	31,943	18.9	4,689	1,553	455	33,293
Buildings without Water Heating	1,157	9,601	8.3	767	254	74	5,550
Cooking Energy Source							
Electricity	437	13,733	31.4	2,811	931	273	18,252
Other Excluding Electricity	420	10,948	26.1	1,729	573	168	12,621
Buildings without Cooking	3,538	41,035	11.6	4,812	1,594	467	35,551
Energy End Uses (more than one may apply)							
Buildings with Space Heating	4,008	61,565	15.4	8,950	2,965	869	63,164
Buildings with Cooling	3,560	58,474	16.4	9,046	2,996	878	63,845
Buildings with Water Heating	3,239	56,115	17.3	8,585	2,844	833	60,875
Buildings with Cooking	857	24,681	28.8	4,540	1,504	441	30,873
Buildings with Manufacturing	151	3,126	20.7	449	149	44	3,060
Buildings with Electricity Generation	172	11,882	69.3	2,525	836	245	15,509
Percent of Floorspace Heated							
Not Heated	387	4,151	10.7	402	133	39	3,261
1 to 50	569	7,564	13.3	576	191	56	4,533
51 to 99	626	10,737	17.1	1,683	557	163	11,384
100	2,813	43,264	15.4	6,691	2,216	650	47,247
Percent of Floorspace Cooled							
Not Cooled	836	7,242	8.7	306	101	30	2,579
1 to 50	1,012	16,846	16.6	1,315	436	128	10,363
51 to 99	751	16,966	22.6	3,026	1,002	294	20,141
100	1,796	24,662	13.7	4,705	1,559	457	33,342
Percent Lit When Open							
Zero	Q	Q	Q	Q	Q	Q	Q
1 to 50	835	9,187	11.0	672	223	65	5,396
51 to 99	1,228	20,665	16.8	3,034	1,005	295	21,574
100	2,096	34,233	16.3	5,594	1,853	543	39,065
Building Never Open/ Electricity Not Used	202	1,458	7.2	41	14	4	319

Table C9. Total Electricity Consumption and Expenditures, 1999

	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures
				Primary	Site		
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	Total (million dollars)
Percent Lit When Closed							
Zero	2,174	20,771	9.6	1,772	587	172	14,034
1 to 50	1,688	30,950	18.3	4,413	1,462	428	31,794
51 to 100	143	2,160	15.1	553	183	54	3,857
Building Never Closed/ Electricity Not Used	390	11,835	30.3	2,614	866	254	16,739
Heating Equipment (more than one may apply)							
Heat Pumps	492	8,923	18.1	1,557	516	151	10,243
Furnaces	1,460	14,449	9.9	1,435	475	139	10,722
Individual Space Heaters	886	17,321	19.5	2,215	734	215	15,110
District Heat	96	5,534	57.7	1,022	339	99	6,432
Boilers	581	19,514	33.6	2,755	912	267	18,848
Packaged Heating Units	1,347	25,743	19.1	4,435	1,469	431	31,069
Other	185	4,073	22.1	691	229	67	4,400
Cooling Equipment (more than one may apply)							
Residential-Type Central Air Conditioners	676	8,329	12.3	1,037	343	101	7,113
Heat Pumps	485	9,147	18.8	1,574	521	153	10,416
Individual Air Conditioners	799	14,276	17.9	1,642	544	159	11,793
District Chilled Water	50	2,750	55.4	571	189	55	3,224
Central Chillers	130	12,909	99.7	2,723	902	264	17,041
Packaged Air Conditioning Units	1,953	36,527	18.7	6,024	1,995	585	43,059
Swamp Coolers	136	2,219	16.3	308	102	30	2,238
Other	49	1,312	26.7	247	82	24	1,580
Main Equipment Replaced Since 1995 (more than one may apply)							
Heating	984	13,220	13.4	1,880	623	182	13,421
Cooling	1,085	17,390	16.0	2,609	864	253	18,381
Lighting Equipment Types (more than one may apply)							
Incandescent	2,193	38,156	17.4	5,591	1,852	543	39,345
Standard Fluorescent	3,778	60,344	16.0	8,872	2,939	861	62,616
Compact Fluorescent	607	20,666	34.1	3,613	1,197	351	24,269
High Intensity Discharge	430	19,223	44.8	3,088	1,023	300	19,743
Halogen	572	17,926	31.3	3,014	998	293	20,656
Other	58	1,004	17.5	179	59	17	1,235
Water Heating Equipment							
Centralized System	2,472	35,579	14.4	5,164	1,710	501	38,010
Distributed System	566	10,899	19.3	1,610	533	156	11,383
Combination of Centralized and Distributed System	200	9,637	48.1	1,811	600	176	11,481
Commercial Refrigeration Equipment (more than one may apply)							
Any Equipment	950	25,652	27.0	4,997	1,655	485	34,282
Walk-In Units	658	19,713	29.9	4,186	1,386	406	28,489
Cases or Cabinets	820	22,001	26.8	4,370	1,448	424	30,056
None	3,445	40,064	11.6	4,355	1,442	423	32,142

Table C9. Total Electricity Consumption and Expenditures, 1999

	All Buildings Using Electricity			Electricity Consumption			Electricity Expenditures
				Primary	Site		
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (trillion Btu)	Total (billion kWh)	Total (million dollars)
Personal Computers							
None	1,355	7,961	5.9	584	193	57	4,762
1 to 4	1,636	13,853	8.5	1,678	556	163	13,009
5 to 9	542	6,528	12.0	927	307	90	6,947
10 to 19	403	7,514	18.7	992	329	96	7,747
20 to 49	247	8,087	32.7	1,153	382	112	8,162
50 to 99	105	5,867	55.9	803	266	78	5,601
100 to 249	71	6,818	96.0	1,240	411	120	7,675
250 or More	36	9,088	252.4	1,974	654	192	12,521
Photocopiers							
None	2,564	20,009	7.8	2,242	743	218	17,615
One	1,114	12,928	11.6	1,741	577	169	12,840
2 to 4	540	15,620	28.9	2,059	682	200	14,526
5 to 9	102	5,384	52.6	857	284	83	5,626
10 or More	75	11,774	156.7	2,453	813	238	15,816
Other Electronic Equipment (more than one may apply)							
Laser Printers	1,949	46,567	23.9	7,396	2,450	718	51,039
FAX Machines	2,807	54,764	19.5	8,505	2,817	826	59,661
Medical Diagnostic Equipment	86	2,493	29.1	637	211	62	3,775
Annual Consumption (kilowatthours)							
10,000 or Less	747	3,216	4.3	38	13	4	426
10,001 to 50,000	1,578	9,239	5.9	418	138	41	3,856
50,001 to 100,000	743	7,001	9.4	560	185	54	4,920
100,001 to 500,000	1,042	16,811	16.1	2,408	798	234	18,923
500,001 to 1,000,000	141	6,966	49.4	1,024	339	99	7,526
1,000,001 to 5,000,000	125	13,661	109.2	2,650	878	257	17,233
Over 5,000,000	19	8,823	475.8	2,254	747	219	13,542
Provider of Purchased Electricity (more than one may apply)							
Local Utility	4,224	62,043	14.7	8,687	2,877	843	61,536
Some Other Provider	140	3,101	22.1	525	174	51	4,024

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: * Site electricity is the amount of electricity delivered to commercial buildings. Primary electricity, which is not included in the "Total of Major Fuels" category, is site electricity plus the conversion losses in the electric generation process at the utility plant. * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C10. Electricity Consumption and Expenditure Intensities, 1999

	Electricity Consumption						Electricity Expenditures		
				Distribution of Building-Level Intensities (kWh/square foot)					
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)
All Buildings	207	13.8	11.1	3.5	7.8	16.9	15.1	1.01	0.073
Building Floorspace (Square Feet)									
1,001 to 5,000	56	19.4	11.0	4.1	8.6	22.0	4.7	1.63	0.084
5,001 to 10,000	80	10.7	7.6	2.3	6.5	13.2	6.9	0.93	0.086
10,001 to 25,000	158	10.0	9.5	3.1	6.3	13.3	12.6	0.80	0.080
25,001 to 50,000	430	11.9	11.8	3.6	8.3	16.1	32.4	0.89	0.075
50,001 to 100,000	1,009	14.4	11.3	4.9	9.9	18.9	69.9	1.00	0.069
100,001 to 200,000	2,234	16.0	14.9	6.0	12.6	22.2	144.7	1.04	0.065
200,001 to 500,000	4,349	14.7	11.3	5.1	10.0	20.4	280.4	0.95	0.064
Over 500,000	15,332	16.5	12.6	8.9	13.6	20.6	1,003.0	1.08	0.065
Principal Building Activity									
Education	230	8.7	8.5	4.1	6.6	9.3	17.8	0.67	0.077
Food Sales	279	48.7	49.5	39.2	58.9	122.1	19.4	3.38	0.069
Food Service	182	34.2	15.7	13.9	28.7	57.3	14.6	2.75	0.080
Health Care	535	23.3	10.9	5.8	11.3	15.5	33.6	1.46	0.063
Inpatient	4,556	27.1	15.1	15.5	21.5	29.3	265.8	1.58	0.058
Outpatient	151	16.7	6.1	5.4	9.7	15.0	11.4	1.25	0.075
Lodging	375	12.7	24.4	7.5	12.6	17.3	27.9	0.94	0.074
Mercantile	229	14.7	13.4	4.3	8.9	16.8	17.8	1.14	0.078
Retail (Other Than Mall)	121	13.6	13.9	4.1	8.0	15.3	9.7	1.08	0.080
Enclosed and Strip Malls	660	15.6	13.1	5.9	14.5	26.7	50.1	1.19	0.076
Office	304	18.7	7.8	6.0	11.7	17.9	21.2	1.30	0.070
Public Assembly	187	12.9	17.8	3.2	6.8	11.6	13.3	0.92	0.071
Public Order and Safety	184	11.5	7.0	1.8	4.1	9.6	12.5	0.78	0.068
Religious Worship	40	3.6	7.4	1.1	2.5	4.2	3.4	0.31	0.085
Service	86	12.1	8.9	3.3	6.1	11.9	6.6	0.93	0.077
Warehouse and Storage	130	6.5	10.5	1.3	3.0	7.0	9.7	0.49	0.075
Other	302	24.4	20.4	3.3	13.8	22.0	21.0	1.69	0.069
Vacant	25	2.7	Q	0.3	0.9	4.7	2.2	0.24	0.087
Year Constructed									
1919 or Before	73	7.2	6.8	2.1	4.2	9.6	6.0	0.58	0.081
1920 to 1945	112	8.6	9.1	2.0	5.0	11.3	8.7	0.66	0.077
1946 to 1959	127	10.3	9.2	2.3	5.8	12.6	9.8	0.79	0.077
1960 to 1969	218	12.8	10.6	3.9	9.3	20.9	16.3	0.96	0.075
1970 to 1979	240	15.5	11.5	4.3	9.1	19.9	17.7	1.15	0.074
1980 to 1989	283	16.4	11.2	4.9	11.2	21.0	20.2	1.17	0.071
1990 to 1999	293	17.8	14.4	3.7	8.6	21.8	20.3	1.24	0.069
Census Region and Division									
Northeast	249	13.3	11.1	2.5	6.5	14.8	23.7	1.26	0.095
New England	203	10.7	10.0	2.6	6.9	11.6	19.9	1.05	0.098
Middle Atlantic	268	14.4	11.5	2.5	6.5	16.6	25.3	1.36	0.094
Midwest	174	11.8	10.6	2.5	5.6	12.1	11.6	0.79	0.067
East North Central	172	11.5	10.8	2.6	5.9	11.6	12.1	0.80	0.070
West North Central	178	12.5	10.3	2.1	4.8	13.0	10.8	0.76	0.061
South	216	15.8	12.5	4.1	9.7	22.1	13.8	1.01	0.064
South Atlantic	253	16.6	12.8	3.7	9.1	19.6	16.8	1.11	0.067
East South Central	207	15.4	13.4	5.0	11.9	24.1	12.6	0.94	0.061
West South Central	179	15.0	11.6	3.3	8.7	24.1	10.9	0.91	0.061
West	198	13.2	9.5	3.9	7.7	16.4	15.8	1.06	0.080
Mountain	187	12.0	9.9	2.8	6.9	16.1	12.2	0.78	0.065
Pacific	203	13.8	9.4	4.1	8.1	16.4	17.3	1.17	0.085

Table C10. Electricity Consumption and Expenditure Intensities, 1999

	Electricity Consumption						Electricity Expenditures		
				Distribution of Building-Level Intensities (kWh/square foot)					
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)
Climate Zone: 45-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	132	11.2	11.0	3.0	6.2	13.4	9.2	0.78	0.070
5,500-7,000 HDD	213	11.8	10.7	2.5	5.7	13.0	16.4	0.91	0.077
4,000-5,499 HDD	225	14.7	10.5	3.2	7.2	15.8	16.7	1.09	0.074
Fewer than 4,000 HDD	226	15.2	11.5	4.6	9.3	20.4	16.7	1.12	0.074
2,000 CDD or More and --									
Fewer than 4,000 HDD	196	15.0	12.0	3.3	9.8	22.1	13.3	1.02	0.068
Workers (main shift)									
Fewer than 5	46	7.7	23.2	2.0	4.8	12.3	3.8	0.63	0.082
5 to 9	79	10.1	12.1	4.2	8.5	14.7	6.8	0.87	0.086
10 to 19	150	12.8	11.9	5.7	9.9	20.9	12.4	1.05	0.082
20 to 49	305	13.7	10.5	6.4	13.1	24.5	22.7	1.02	0.075
50 to 99	703	13.8	10.7	7.0	13.6	22.9	52.4	1.03	0.075
100 to 249	1,646	17.8	11.8	10.4	14.5	25.0	107.0	1.16	0.065
250 or More	5,712	21.2	8.8	13.8	20.7	29.4	372.1	1.38	0.065
Weekly Operating Hours									
39 or Fewer	26	3.8	5.7	0.8	2.4	5.1	2.2	0.32	0.086
40 to 48	99	8.7	7.3	2.7	6.4	13.0	7.7	0.67	0.078
49 to 60	174	12.0	8.2	4.0	7.7	14.7	13.2	0.91	0.076
61 to 84	266	13.9	10.7	6.2	11.6	23.7	20.1	1.06	0.076
85 to 167	388	19.9	16.5	11.6	29.6	56.7	28.6	1.47	0.074
Open Continuously	651	21.4	16.9	6.2	13.7	33.6	42.9	1.41	0.066
Ownership and Occupancy									
Nongovernment Owned	191	13.8	11.0	3.3	7.6	16.9	14.1	1.03	0.074
Owner Occupied	193	14.1	11.4	3.3	7.6	16.2	14.0	1.03	0.073
Nonowner Occupied	197	13.7	9.9	3.9	8.7	19.4	15.3	1.06	0.078
Unoccupied	Q	3.2	N	0.2	0.3	3.0	Q	0.27	0.085
Government Owned	332	13.7	11.7	4.8	8.4	16.7	22.8	0.94	0.069
Federal	669	21.0	12.5	8.3	18.1	42.8	40.9	1.28	0.061
State	568	13.9	13.2	6.4	12.9	17.9	38.5	0.94	0.068
Local	228	11.8	10.8	4.3	8.0	13.4	16.5	0.85	0.072
Vacancy Status									
Completely Vacant	Q	Q	N	0.2	0.9	4.7	Q	Q	Q
Mostly Vacant	16	1.7	Q	0.3	0.8	2.8	1.5	0.16	0.094
Partially Vacant	298	12.6	9.3	1.9	5.3	13.5	21.6	0.91	0.072
Not At All Vacant	197	14.4	11.7	3.9	8.4	18.3	14.4	1.06	0.073
Number of Establishments									
One	172	13.8	12.2	3.5	7.8	17.3	12.6	1.01	0.073
2 to 5	185	12.0	10.1	3.7	8.2	13.7	13.7	0.89	0.074
6 to 10	524	16.6	9.0	5.3	13.6	24.6	39.6	1.26	0.076
11 to 20	1,124	16.5	9.0	4.0	13.9	21.0	80.2	1.18	0.071
More than 20	2,746	15.4	9.0	3.2	10.5	18.9	200.1	1.12	0.073
Currently Unoccupied	Q	3.2	N	0.2	0.3	4.7	Q	0.26	0.083
Energy Sources (more than one may apply)									
Electricity	207	13.8	11.1	3.5	7.8	16.9	15.1	1.01	0.073
Natural Gas	241	14.1	11.4	3.8	8.2	16.6	17.4	1.02	0.072
Fuel Oil	522	17.0	11.6	2.7	5.7	12.6	35.0	1.14	0.067
District Heat	895	17.8	12.1	6.6	10.3	16.8	58.3	1.16	0.065
District Chilled Water	1,118	20.2	12.0	6.6	8.3	16.4	65.0	1.17	0.058
Propane	170	12.2	12.1	2.3	7.1	17.4	13.9	1.00	0.082
Other	217	14.3	9.7	4.2	8.0	24.5	16.5	1.08	0.076

Table C10. Electricity Consumption and Expenditure Intensities, 1999

	Electricity Consumption						Electricity Expenditures		
				Distribution of Building-Level Intensities (kWh/square foot)					
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)
Space-Heating Energy Source									
Electricity	265	15.4	11.5	4.9	9.7	19.9	18.8	1.09	0.071
Electricity Main	268	17.1	11.9	6.2	13.6	25.2	19.2	1.23	0.072
Electricity Secondary	261	13.4	11.0	3.4	6.8	12.6	18.2	0.93	0.070
Other Excluding Electricity	174	12.7	10.6	3.1	6.5	14.2	13.1	0.95	0.075
Buildings without Heating	101	9.4	10.6	0.8	3.6	13.8	8.4	0.79	0.084
Primary Space-Heating Energy Source									
Electricity	268	17.1	11.9	6.2	13.6	25.2	19.2	1.23	0.072
Natural Gas	194	12.9	10.8	3.6	7.1	14.2	14.1	0.94	0.073
Fuel Oil	98	8.0	7.0	2.0	4.8	9.6	9.7	0.79	0.099
District Heat	1,173	17.8	12.9	6.1	9.5	16.3	75.2	1.14	0.064
Propane	75	10.0	11.0	1.5	5.7	16.7	7.0	0.93	0.093
Other	Q	Q	Q	0.8	1.6	4.8	Q	Q	Q
Cooling Energy Source									
Electricity	239	14.9	11.3	4.3	9.3	19.0	17.5	1.09	0.073
Other Excluding Electricity	483	18.0	11.5	8.9	14.1	35.5	32.6	1.22	0.068
Buildings without Cooling	36	4.1	6.7	0.8	2.5	5.0	3.1	0.36	0.087
Water-Heating Energy Source									
Electricity	245	15.6	11.3	5.0	11.1	22.4	17.8	1.14	0.073
Other Excluding Electricity	269	14.3	11.4	3.8	9.3	20.1	19.7	1.04	0.073
Buildings without Water Heating	64	7.8	8.9	1.4	3.9	8.3	4.8	0.58	0.075
Cooking Energy Source									
Electricity	624	19.9	14.9	8.5	19.9	57.3	41.7	1.33	0.067
Other Excluding Electricity	400	15.3	12.7	5.3	13.8	26.8	30.0	1.15	0.075
Buildings without Cooking	132	11.4	9.3	3.0	6.5	14.1	10.0	0.87	0.076
Energy End Uses (more than one may apply)									
Buildings with Space Heating	217	14.1	11.1	3.7	8.2	17.2	15.8	1.03	0.073
Buildings with Cooling	247	15.0	11.4	4.4	9.6	19.5	17.9	1.09	0.073
Buildings with Water Heating	257	14.9	11.4	4.5	9.9	21.0	18.8	1.08	0.073
Buildings with Cooking	514	17.9	13.9	7.2	15.8	39.2	36.0	1.25	0.070
Buildings with Manufacturing	288	13.9	10.0	3.2	7.2	13.4	20.2	0.98	0.070
Buildings with Electricity Generation	1,429	20.6	13.0	7.3	12.6	29.3	90.4	1.31	0.063
Percent of Floorspace Heated									
Not Heated	101	9.4	10.6	0.8	3.6	13.8	8.4	0.79	0.084
1 to 50	98	7.4	10.7	1.9	4.1	8.5	8.0	0.60	0.081
51 to 99	261	15.2	12.5	3.5	8.8	23.8	18.2	1.06	0.070
100	231	15.0	10.9	4.3	8.9	18.4	16.8	1.09	0.073
Percent of Floorspace Cooled									
Not Cooled	36	4.1	6.7	0.8	2.5	5.0	3.1	0.36	0.087
1 to 50	126	7.6	9.0	2.4	5.3	10.0	10.2	0.62	0.081
51 to 99	391	17.3	12.3	5.0	12.5	25.2	26.8	1.19	0.069
100	254	18.5	11.6	5.9	12.8	24.1	18.6	1.35	0.073
Percent Lit When Open									
Zero	Q	Q	Q	0.8	3.5	8.4	Q	Q	Q
1 to 50	78	7.1	13.3	1.9	4.0	10.8	6.5	0.59	0.083
51 to 99	240	14.3	10.3	4.2	8.7	17.7	17.6	1.04	0.073
100	259	15.9	11.3	4.8	9.4	20.9	18.6	1.14	0.072
Building Never Open/ Electricity Not Used	20	2.8	Q	0.2	0.6	2.4	1.6	0.22	0.079

Table C10. Electricity Consumption and Expenditure Intensities, 1999

	Electricity Consumption						Electricity Expenditures		
				Distribution of Building-Level Intensities (kWh/square foot)					
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)
Percent Lit When Closed									
Zero	79	8.3	7.9	2.0	4.9	10.4	6.5	0.68	0.082
1 to 50	254	13.8	10.2	5.1	10.9	22.1	18.8	1.03	0.074
51 to 100	374	24.9	17.3	10.6	22.5	44.0	26.9	1.79	0.072
Building Never Closed/ Electricity Not Used	651	21.4	16.9	6.2	13.7	33.6	42.9	1.41	0.066
Heating Equipment (more than one may apply)									
Heat Pumps	307	16.9	12.0	7.3	13.7	24.7	20.8	1.15	0.068
Furnaces	95	9.6	8.8	2.7	5.6	12.8	7.3	0.74	0.077
Individual Space Heaters	243	12.4	11.2	2.6	5.7	12.9	17.0	0.87	0.070
District Heat	1,034	17.9	12.2	6.4	9.3	17.5	67.0	1.16	0.065
Boilers	461	13.7	11.0	3.5	7.2	12.6	32.5	0.97	0.070
Packaged Heating Units	320	16.7	13.4	5.7	11.7	24.1	23.1	1.21	0.072
Other	364	16.5	9.6	3.2	7.2	17.4	23.8	1.08	0.066
Cooling Equipment (more than one may apply)									
Residential-Type Central Air Conditioners	149	12.1	9.9	3.7	7.2	15.4	10.5	0.85	0.071
Heat Pumps	315	16.7	11.3	7.8	13.6	24.7	21.5	1.14	0.068
Individual Air Conditioners	200	11.2	9.6	3.5	6.9	13.0	14.8	0.83	0.074
District Chilled Water	1,118	20.2	12.0	6.6	8.3	16.4	65.0	1.17	0.058
Central Chillers	2,041	20.5	12.2	8.6	16.0	29.8	131.6	1.32	0.064
Packaged Air Conditioning Units	300	16.0	12.1	5.3	11.2	23.6	22.1	1.18	0.074
Swamp Coolers	220	13.5	12.3	2.6	7.7	22.5	16.5	1.01	0.075
Other	487	18.2	13.0	3.9	8.1	16.7	32.1	1.20	0.066
Main Equipment Replaced Since 1995 (more than one may apply)									
Heating	185	13.8	10.8	4.2	8.5	18.6	13.6	1.02	0.074
Cooling	233	14.6	10.9	4.7	9.9	21.2	16.9	1.06	0.073
Lighting Equipment Types (more than one may apply)									
Incandescent	248	14.2	10.9	3.5	8.4	16.9	17.9	1.03	0.072
Standard Fluorescent	228	14.3	11.1	3.9	8.4	18.0	16.6	1.04	0.073
Compact Fluorescent	578	17.0	11.7	5.7	11.4	20.7	40.0	1.17	0.069
High Intensity Discharge	698	15.6	13.8	3.9	8.6	18.8	46.0	1.03	0.066
Halogen	511	16.3	11.4	5.0	10.8	21.6	36.1	1.15	0.071
Other	303	17.4	12.5	7.1	11.2	32.2	21.5	1.23	0.071
Water Heating Equipment									
Centralized System	203	14.1	11.1	4.2	9.7	20.9	15.4	1.07	0.076
Distributed System	276	14.3	10.9	4.6	9.7	18.4	20.1	1.04	0.073
Combination of Centralized and Distributed System	878	18.2	12.6	6.3	16.1	34.9	57.3	1.19	0.065
Commercial Refrigeration Equipment (more than one may apply)									
Any Equipment	511	18.9	14.5	10.0	21.2	46.3	36.1	1.34	0.071
Walk-In Units	617	20.6	15.6	13.8	32.1	61.3	43.3	1.45	0.070
Cases or Cabinets	517	19.3	14.4	9.7	21.2	47.6	36.7	1.37	0.071
None	123	10.6	8.8	2.7	5.9	12.9	9.3	0.80	0.076

Table C10. Electricity Consumption and Expenditure Intensities, 1999

	Electricity Consumption						Electricity Expenditures		
				Distribution of Building-Level Intensities (kWh/square foot)					
	per Building (thousand kWh)	per Square Foot (kWh)	per Worker (thousand kWh)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per kWh (dollars)
Personal Computers									
None	42	7.1	12.1	1.3	4.1	11.6	3.5	0.60	0.084
1 to 4	100	11.8	12.8	3.8	7.0	15.5	8.0	0.94	0.080
5 to 9	166	13.8	12.0	5.6	12.0	23.6	12.8	1.06	0.077
10 to 19	239	12.8	10.5	6.9	12.6	20.9	19.2	1.03	0.080
20 to 49	453	13.8	11.6	6.6	11.9	22.1	33.0	1.01	0.073
50 to 99	742	13.3	10.7	6.2	11.0	16.1	53.3	0.95	0.072
100 to 249	1,694	17.7	12.6	8.7	15.5	25.0	108.0	1.13	0.064
250 or More	5,321	21.1	9.1	12.2	19.8	29.2	347.7	1.38	0.065
Photocopiers									
None	85	10.9	11.6	2.3	5.9	15.6	6.9	0.88	0.081
One	152	13.1	13.0	4.8	8.9	17.9	11.5	0.99	0.076
2 to 4	370	12.8	11.9	5.0	9.9	16.7	26.9	0.93	0.073
5 to 9	813	15.5	10.1	7.6	10.6	17.6	54.9	1.05	0.068
10 or More	3,169	20.2	9.5	11.6	18.5	24.6	210.4	1.34	0.066
Other Electronic Equipment (more than one may apply)									
Laser Printers	368	15.4	10.7	5.0	10.0	18.4	26.2	1.10	0.071
FAX Machines	294	15.1	11.1	4.8	9.9	19.2	21.3	1.09	0.072
Medical Diagnostic Equipment	721	24.8	11.0	5.4	9.7	15.0	44.1	1.51	0.061
Annual Consumption (kilowatthours)									
10,000 or Less	5	1.1	2.1	0.6	1.4	3.1	0.6	0.13	0.115
10,001 to 50,000	26	4.4	4.3	3.4	5.7	9.7	2.4	0.42	0.095
50,001 to 100,000	73	7.8	7.3	6.5	10.6	18.8	6.6	0.70	0.091
100,001 to 500,000	224	13.9	10.9	10.3	19.9	42.8	18.2	1.13	0.081
500,001 to 1,000,000	705	14.3	12.3	11.8	18.6	31.7	53.4	1.08	0.076
1,000,001 to 5,000,000	2,057	18.8	13.9	14.9	22.4	33.2	137.8	1.26	0.067
Over 5,000,000	11,802	24.8	14.6	17.6	28.2	43.0	730.3	1.53	0.062
Provider of Purchased Electricity (more than one may apply)									
Local Utility	200	13.6	10.9	3.4	7.8	16.7	14.6	0.99	0.073
Some Other Provider	363	16.4	13.4	2.4	7.8	15.0	28.7	1.30	0.079

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use.
* Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings	159	194	366	189	11,964	16,389	23,076	14,287	13.3	11.8	15.8	13.2
Building Floorspace (Square Feet)												
1,001 to 5,000	Q	21	55	24	820	1,664	2,411	1,385	25.7	12.5	23.0	17.6
5,001 to 10,000	10	17	33	22	1,246	1,951	2,862	1,661	8.3	8.9	11.6	13.2
10,001 to 25,000	18	22	50	19	1,732	2,830	4,187	2,094	10.2	7.6	11.9	9.2
25,001 to 50,000	15	17	48	29	1,407	1,754	3,345	2,668	10.5	9.5	14.5	10.8
50,001 to 100,000	20	31	55	38	1,748	2,403	3,450	2,434	11.3	13.1	16.1	15.6
100,001 to 200,000	19	35	54	24	1,461	2,279	2,858	1,648	13.1	15.2	18.9	14.7
200,001 to 500,000	18	25	40	17	1,348	1,988	2,238	1,216	13.4	12.5	18.0	13.7
Over 500,000	38	27	29	16	2,202	1,519	1,726	1,180	17.4	17.7	16.6	13.2
Principal Building Activity												
Education	14	17	25	19	1,714	2,250	2,348	2,338	8.2	7.6	10.7	8.2
Food Sales	Q	Q	22	Q	Q	Q	391	Q	Q	Q	55.4	Q
Food Service	Q	14	27	Q	Q	558	676	Q	Q	25.3	39.7	Q
Health Care	9	15	31	13	448	750	1,085	635	20.2	19.6	28.5	21.2
Inpatient	8	11	22	9	377	512	630	346	22.5	22.0	34.8	25.6
Outpatient	Q	Q	9	5	Q	Q	454	289	Q	Q	19.7	15.9
Lodging	6	10	25	16	484	940	1,595	1,501	12.3	11.1	15.5	10.9
Mercantile	27	28	65	33	1,885	2,591	4,080	1,842	14.2	11.0	15.8	17.9
Retail (Other Than Mall)	14	16	25	10	974	1,600	1,566	627	14.0	9.8	16.0	16.5
Enclosed and Strip Malls	13	13	40	23	912	991	2,513	1,215	14.3	13.0	15.8	18.6
Office	40	50	88	47	2,389	2,820	4,162	2,672	16.7	17.8	21.1	17.6
Public Assembly	14	13	21	8	882	1,132	1,471	856	15.5	11.5	14.3	9.7
Public Order and Safety	Q	2	4	Q	Q	216	286	Q	Q	10.0	14.9	Q
Religious Worship	1	2	6	3	440	923	1,146	896	2.2	2.6	5.3	3.2
Service	Q	10	19	5	Q	818	1,387	443	Q	11.7	13.8	11.5
Warehouse and Storage	13	17	25	10	1,666	2,587	3,774	1,852	7.7	6.5	6.6	5.4
Other	Q	Q	8	Q	Q	Q	301	Q	Q	Q	25.6	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year Constructed												
1919 or Before	7	Q	3	4	1,216	1,477	536	485	6.1	8.2	6.2	7.9
1920 to 1945	12	19	16	7	1,552	2,371	1,665	693	7.9	8.1	9.6	9.4
1946 to 1959	26	18	29	17	2,030	2,152	2,770	1,842	12.9	8.3	10.5	9.5
1960 to 1969	26	30	48	33	2,050	2,481	3,301	2,854	12.7	12.1	14.6	11.5
1970 to 1979	28	30	77	46	1,823	2,320	4,268	3,338	15.6	13.0	18.0	13.9
1980 to 1989	31	46	105	40	1,917	2,800	6,098	2,671	16.2	16.6	17.1	14.8
1990 to 1999	28	38	87	42	1,376	2,788	4,439	2,404	20.2	13.7	19.7	17.7
Climate Zone: 45-Year Average												
Under 2,000 CDD and --												
More than 7,000 HDD	11	47	N	6	1,150	4,110	N	491	9.5	11.5	N	13.0
5,500-7,000 HDD	71	101	N	25	5,698	8,716	N	2,293	12.5	11.5	N	10.9
4,000-5,499 HDD	77	46	78	30	5,117	3,563	4,694	2,418	15.0	13.0	16.6	12.5
Fewer than 4,000 HDD	N	N	142	100	N	N	8,687	7,235	N	N	16.4	13.8
2,000 CDD or More and --												
Fewer than 4,000 HDD	N	N	145	27	N	N	9,696	1,850	N	N	15.0	14.9
Workers (main shift)												
Fewer than 5	10	21	47	20	1,510	3,661	5,171	2,409	6.5	5.6	9.1	8.4
5 to 9	12	15	23	13	1,372	1,689	1,730	1,482	8.6	9.0	13.6	8.8
10 to 19	21	17	45	20	1,472	1,930	2,935	1,690	14.1	8.8	15.2	11.9
20 to 49	21	27	69	32	1,574	2,575	4,174	2,492	13.6	10.3	16.5	12.7
50 to 99	22	24	46	31	1,814	1,876	2,876	2,332	11.9	12.9	16.0	13.1
100 to 249	23	37	61	28	1,702	2,228	2,856	1,570	13.3	16.8	21.4	17.6
250 or More	51	53	74	46	2,519	2,430	3,335	2,312	20.1	21.8	22.3	20.0

Table C11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Weekly Operating Hours												
39 or Fewer	1	5	9	5	661	1,512	2,186	955	2.2	3.0	4.0	5.3
40 to 48	14	22	50	27	1,864	2,970	5,265	2,971	7.7	7.4	9.6	9.0
49 to 60	31	31	72	37	2,792	3,566	4,617	3,211	11.0	8.7	15.5	11.5
61 to 84	29	42	63	38	2,482	3,084	4,198	2,616	11.6	13.8	15.0	14.5
85 to 167	28	41	72	36	1,674	2,531	2,936	1,789	17.0	16.3	24.5	20.2
Open Continuously	55	53	100	46	2,491	2,725	3,876	2,743	22.1	19.3	25.7	16.9
Ownership and Occupancy												
Nongovernment Owned	126	160	301	155	9,398	13,529	19,340	11,372	13.4	11.9	15.6	13.6
Owner Occupied	95	125	217	93	7,124	9,931	13,151	7,300	13.4	12.5	16.5	12.7
Nonowner Occupied	30	35	83	62	2,235	3,398	5,818	3,990	13.6	10.4	14.3	15.5
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	33	34	64	34	2,566	2,860	3,736	2,914	12.9	11.8	17.2	11.7
Federal	Q	Q	14	9	Q	318	549	534	Q	20.9	25.6	16.8
State	10	12	16	10	683	956	915	828	14.0	12.6	17.1	11.8
Local	17	15	34	15	1,572	1,586	2,273	1,552	11.0	9.4	15.2	10.0
Vacancy Status												
Completely Vacant	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant	38	42	73	37	2,662	3,892	5,428	3,111	14.1	10.8	13.4	12.0
Not At All Vacant	121	151	292	151	9,086	12,149	17,274	11,002	13.3	12.5	16.9	13.7
Number of Establishments												
One	100	130	239	123	7,520	11,211	14,584	9,524	13.3	11.6	16.4	12.9
2 to 5	21	35	45	25	2,047	2,900	3,420	2,075	10.1	12.1	13.0	12.2
6 to 10	6	6	27	20	494	571	1,440	1,063	12.9	11.3	18.7	18.4
11 to 20	11	9	24	10	Q	579	1,239	738	16.1	14.9	19.3	13.5
More than 20	21	13	29	10	1,159	864	2,000	786	18.0	15.5	14.7	13.3
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than one may apply)												
Electricity	159	194	366	189	11,964	16,389	23,076	14,287	13.3	11.8	15.8	13.2
Natural Gas	103	159	241	140	7,305	13,506	14,199	10,486	14.1	11.7	17.0	13.3
Fuel Oil	63	48	83	32	5,406	2,423	3,749	1,699	11.7	19.8	22.2	18.7
District Heat	36	26	26	17	1,898	1,521	1,265	1,207	18.8	17.4	20.2	14.4
District Chilled Water	9	16	18	12	326	746	939	739	29.0	21.9	18.9	16.1
Propane	22	15	31	9	1,706	1,405	2,389	790	12.9	10.6	12.9	11.5
Other	6	8	12	8	580	606	579	557	10.0	12.4	20.5	14.2
Space-Heating Energy Source												
Electricity	74	94	238	93	4,625	6,429	13,862	7,375	16.0	14.7	17.1	12.6
Electricity Main	30	45	165	62	1,645	2,355	9,259	4,368	18.5	19.1	17.8	14.1
Electricity Secondary	44	49	72	31	2,980	4,074	4,603	3,007	14.6	12.1	15.7	10.3
Other Excluding Electricity	84	98	104	84	7,034	9,486	6,736	6,017	11.9	10.4	15.4	13.9
Buildings without Heating	Q	Q	24	13	Q	Q	2,478	894	Q	Q	9.6	14.2
Primary Space-Heating Energy Source												
Electricity	30	45	165	62	1,645	2,355	9,259	4,368	18.5	19.1	17.8	14.1
Natural Gas	64	120	142	96	4,913	11,348	8,815	7,624	13.1	10.6	16.1	12.5
Fuel Oil	20	Q	8	Q	2,795	Q	718	Q	7.2	Q	10.5	Q
District Heat	32	24	19	15	1,709	1,411	904	1,053	18.8	16.9	20.9	14.5
Propane	Q	2	7	Q	Q	626	819	Q	Q	3.7	8.0	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

Table C11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Cooling Energy Source												
Electricity	145	170	350	160	9,766	13,474	20,908	11,396	14.9	12.6	16.7	14.1
Other Excluding Electricity	8	17	11	16	545	897	640	846	15.5	19.1	17.1	19.2
Buildings without Cooling	5	7	5	13	1,653	2,018	1,527	2,044	3.1	3.6	3.1	6.2
Water-Heating Energy Source												
Electricity	68	66	181	63	4,485	4,633	10,480	4,574	15.2	14.2	17.3	13.7
Other Excluding Electricity	83	109	149	114	6,092	9,069	8,534	8,248	13.7	12.0	17.5	13.8
Buildings without Water Heating	7	20	35	13	1,387	2,687	4,062	1,465	5.3	7.4	8.5	8.6
Cooking Energy Source												
Electricity	48	56	126	44	2,680	3,335	5,166	2,551	17.9	16.7	24.3	17.1
Other Excluding Electricity	39	36	62	31	2,565	2,706	3,403	2,274	15.2	13.2	18.3	13.5
Buildings without Cooking	72	103	178	115	6,719	10,347	14,507	9,462	10.7	9.9	12.2	12.1
Energy End Uses (more than one may apply)												
Buildings with Space Heating	158	193	342	176	11,659	15,916	20,598	13,392	13.6	12.1	16.6	13.2
Buildings with Cooling	154	187	361	176	10,311	14,371	21,549	12,243	14.9	13.0	16.7	14.4
Buildings with Water Heating	152	174	331	176	10,577	13,702	19,014	12,822	14.3	12.7	17.4	13.8
Buildings with Cooking	87	91	188	74	5,245	6,042	8,569	4,825	16.6	15.1	21.9	15.4
Buildings with Manufacturing	8	15	13	8	568	818	1,035	706	14.2	18.0	12.6	11.1
Buildings with Electricity Generation	51	57	99	37	3,108	2,782	4,062	1,930	16.6	20.5	24.5	19.3
Percent of Floorspace Heated												
Not Heated	Q	Q	24	13	Q	Q	2,478	894	Q	Q	9.6	14.2
1 to 50	7	9	20	21	1,053	1,571	2,538	2,403	6.4	5.7	7.7	8.6
51 to 99	24	27	77	35	1,679	2,323	4,335	2,399	14.6	11.8	17.7	14.4
100	127	156	245	121	8,927	12,022	13,725	8,590	14.2	13.0	17.9	14.1
Percent of Floorspace Cooled												
Not Cooled	5	7	5	13	1,653	2,018	1,527	2,044	3.1	3.6	3.1	6.2
1 to 50	29	35	40	24	3,914	5,068	4,618	3,246	7.4	6.9	8.6	7.4
51 to 99	55	71	113	54	3,196	4,741	5,801	3,229	17.3	15.0	19.4	16.9
100	70	81	209	98	3,202	4,562	11,130	5,768	21.7	17.7	18.7	17.0
Percent Lit When Open												
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	9	15	27	15	1,620	2,486	3,013	2,068	5.4	6.0	8.9	7.2
51 to 99	55	77	110	53	4,081	5,814	6,392	4,378	13.4	13.2	17.2	12.2
100	96	101	226	120	6,077	7,668	12,817	7,671	15.7	13.2	17.6	15.7
Building Never Open/ Electricity Not Used	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Percent Lit When Closed												
Zero	21	35	68	48	3,390	5,264	7,296	4,821	6.2	6.6	9.3	10.1
1 to 50	75	101	170	82	5,766	8,047	10,912	6,226	13.1	12.6	15.5	13.2
51 to 100	Q	5	29	12	Q	353	992	497	Q	15.4	28.8	24.1
Building Never Closed/ Electricity Not Used	55	53	100	46	2,491	2,725	3,876	2,743	22.1	19.3	25.7	16.9
Heating Equipment (more than one may apply)												
Heat Pumps	20	19	83	29	1,193	1,015	4,580	2,135	17.0	18.7	18.2	13.4
Furnaces	22	49	47	21	2,257	5,767	3,949	2,476	9.8	8.5	11.8	8.7
Individual Space Heaters	46	56	76	37	3,555	4,667	5,471	3,628	13.0	12.0	13.8	10.3
District Heat	35	25	22	16	1,876	1,514	1,022	1,121	18.8	16.8	21.7	14.6
Boilers	60	71	84	53	5,461	5,961	4,209	3,883	10.9	11.8	19.9	13.7
Packaged Heating Units	77	82	182	89	4,033	5,081	10,455	6,175	19.1	16.2	17.4	14.4
Other	11	16	27	12	769	1,113	1,391	800	14.6	14.8	19.5	15.3

Table C11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Cooling Equipment (more than one may apply)												
Residential-Type Central Air Conditioners	11	28	49	12	950	2,951	3,272	1,156	11.7	9.5	15.1	10.5
Heat Pumps	17	20	83	32	1,215	1,063	4,604	2,265	14.1	18.9	18.1	14.2
Individual Air Conditioners	43	35	60	21	3,897	3,724	4,526	2,130	11.0	9.5	13.3	9.8
District Chilled Water	9	16	18	12	326	746	939	739	29.0	21.9	18.9	16.1
Central Chillers	50	61	103	51	2,782	3,149	4,328	2,651	17.9	19.3	23.9	19.1
Packaged Air Conditioning Units	113	118	237	117	6,641	8,198	13,915	7,773	17.0	14.3	17.0	15.0
Swamp Coolers	Q	Q	6	21	Q	Q	339	1,624	Q	Q	16.3	12.9
Other	Q	Q	7	Q	Q	Q	343	Q	Q	Q	21.2	Q
Main Equipment Replaced Since 1995 (more than one may apply)												
Heating	24	39	82	38	1,829	3,244	5,080	3,068	13.0	12.0	16.1	12.3
Cooling	40	50	118	45	3,080	3,808	7,088	3,414	13.0	13.2	16.6	13.2
Lighting Equipment Types (more than one may apply)												
Incandescent	95	111	223	113	7,047	9,903	12,970	8,236	13.5	11.2	17.2	13.8
Standard Fluorescent	150	185	346	180	11,348	14,840	20,850	13,305	13.2	12.5	16.6	13.6
Compact Fluorescent	64	89	126	72	3,939	5,518	6,427	4,781	16.2	16.0	19.7	15.0
High Intensity Discharge	58	80	119	43	4,382	5,513	5,874	3,454	13.3	14.5	20.3	12.3
Halogen	62	69	103	59	3,625	4,405	5,847	4,049	17.0	15.6	17.7	14.6
Other	Q	Q	11	Q	Q	Q	441	Q	Q	Q	25.1	Q
Water Heating Equipment												
Centralized System	98	98	192	113	6,941	9,037	11,500	8,102	14.1	10.9	16.7	13.9
Distributed System	23	26	69	38	1,823	2,328	4,120	2,628	12.4	11.3	16.8	14.6
Combination of Centralized and Distributed System	31	50	69	26	1,813	2,336	3,395	2,093	17.1	21.3	20.4	12.2
Commercial Refrigeration Equipment (more than one may apply)												
Any Equipment	98	104	192	90	5,536	6,252	8,734	5,130	17.8	16.7	22.0	17.6
Walk-In Units	83	83	163	77	4,335	4,580	6,809	3,988	19.1	18.1	24.0	19.4
Cases or Cabinets	86	90	169	79	4,723	5,429	7,512	4,337	18.2	16.6	22.5	18.2
None	61	90	173	99	6,428	10,137	14,342	9,156	9.5	8.9	12.1	10.8
Personal Computers												
None	5	13	26	13	1,128	2,281	3,313	1,239	4.3	5.7	7.9	10.3
1 to 4	28	36	68	31	2,293	3,758	4,755	3,045	12.1	9.6	14.4	10.1
5 to 9	10	14	47	19	811	1,308	2,870	1,539	12.8	10.5	16.4	12.2
10 to 19	19	14	42	22	1,749	1,570	2,707	1,488	10.7	8.8	15.5	14.6
20 to 49	21	22	45	23	1,395	1,935	2,588	2,168	15.0	11.5	17.6	10.7
50 to 99	10	19	30	19	903	1,638	1,893	1,432	11.4	11.7	15.8	13.0
100 to 249	23	34	41	23	1,599	1,829	2,174	1,216	14.6	18.4	18.7	18.8
250 or More	43	42	66	40	2,085	2,069	2,776	2,158	20.5	20.4	23.9	18.7
Photocopiers												
None	27	43	96	52	3,300	4,813	7,635	4,261	8.3	8.8	12.6	12.1
One	24	31	79	35	1,633	3,164	5,040	3,091	14.7	9.8	15.7	11.2
2 to 4	35	43	82	39	2,976	4,227	5,109	3,308	11.7	10.3	16.1	11.8
5 to 9	13	27	26	18	986	1,577	1,586	1,234	13.2	17.1	16.2	14.3
10 or More	60	50	82	46	3,069	2,607	3,705	2,393	19.5	19.2	22.2	19.3

Table C11. Electricity Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Electricity Consumption (billion kWh)				Total Floorspace of Buildings Using Electricity (million square feet)				Electricity Energy Intensity (kWh/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Other Electronic Equipment (more than one may apply)												
Laser Printers	133	154	281	149	9,112	11,161	15,628	10,666	14.6	13.8	18.0	14.0
FAX Machines	151	177	327	170	10,496	13,369	18,804	12,095	14.4	13.3	17.4	14.1
Medical Diagnostic Equipment	8	13	28	13	365	586	953	588	21.1	22.8	29.5	21.4
Annual Consumption (kilowatthours)												
10,000 or Less	1	1	1	1	519	974	1,260	463	1.2	1.1	1.0	1.6
10,001 to 50,000	5	11	14	10	1,425	2,838	2,908	2,068	3.5	3.8	5.0	5.1
50,001 to 100,000	8	12	23	12	1,243	1,659	2,480	1,619	6.4	7.2	9.1	7.3
100,001 to 500,000	39	41	104	49	2,688	3,831	6,394	3,897	14.5	10.7	16.3	12.7
500,001 to 1,000,000	16	21	36	26	1,272	1,831	2,158	1,705	12.9	11.5	16.8	15.1
1,000,001 to 5,000,000	36	53	112	56	2,395	3,211	5,091	2,964	15.2	16.5	21.9	19.0
Over 5,000,000	54	55	75	34	2,421	2,045	2,785	1,571	22.2	27.0	27.1	21.9
Provider of Purchased Electricity (more than one may apply)												
Local Utility	136	184	352	172	10,535	15,611	22,263	13,634	12.9	11.8	15.8	12.6
Some Other Provider	24	6	5	Q	1,388	445	597	672	17.0	13.9	7.8	24.6

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C12. Electricity Expenditures by Census Region, 1999

	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars) per kWh				Electricity Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings	15,133	12,933	23,275	15,083	0.10	0.07	0.06	0.08	1.26	0.79	1.01	1.06
Building Floorspace (Square Feet)												
1,001 to 5,000	Q	1,654	4,021	2,222	0.11	0.08	0.07	0.09	2.88	0.99	1.67	1.60
5,001 to 10,000	1,220	1,408	2,478	2,039	0.12	0.08	0.07	0.09	0.98	0.72	0.87	1.23
10,001 to 25,000	1,863	1,626	3,396	1,778	0.11	0.08	0.07	0.09	1.08	0.57	0.81	0.85
25,001 to 50,000	1,526	1,137	3,106	2,419	0.10	0.07	0.06	0.08	1.08	0.65	0.93	0.91
50,001 to 100,000	1,897	2,051	3,348	2,728	0.10	0.07	0.06	0.07	1.09	0.85	0.97	1.12
100,001 to 200,000	1,744	1,934	3,215	1,662	0.09	0.06	0.06	0.07	1.19	0.85	1.13	1.01
200,001 to 500,000	1,404	1,592	2,212	1,223	0.08	0.06	0.05	0.07	1.04	0.80	0.99	1.01
Over 500,000	3,116	1,530	1,498	1,011	0.08	0.06	0.05	0.06	1.41	1.01	0.87	0.86
Principal Building Activity												
Education	1,414	1,209	1,678	1,520	0.10	0.07	0.07	0.08	0.82	0.54	0.71	0.65
Food Sales	Q	Q	1,369	Q	Q	Q	0.06	Q	Q	Q	3.50	Q
Food Service	Q	1,102	1,768	Q	Q	0.08	0.07	Q	Q	1.98	2.62	Q
Health Care	716	870	1,735	946	0.08	0.06	0.06	0.07	1.60	1.16	1.60	1.49
Inpatient	648	612	1,111	577	0.08	0.05	0.05	0.07	1.72	1.20	1.76	1.67
Outpatient	Q	Q	624	369	Q	Q	0.07	0.08	Q	Q	1.37	1.28
Lodging	539	742	1,579	1,406	0.09	0.07	0.06	0.09	1.11	0.79	0.99	0.94
Mercantile	2,787	2,002	4,063	2,999	0.10	0.07	0.06	0.09	1.48	0.77	1.00	1.63
Retail (Other Than Mall)	1,519	1,136	1,610	902	0.11	0.07	0.06	0.09	1.56	0.71	1.03	1.44
Enclosed and Strip Malls	1,268	867	2,453	2,097	0.10	0.07	0.06	0.09	1.39	0.87	0.98	1.73
Office	3,681	3,091	5,493	3,418	0.09	0.06	0.06	0.07	1.54	1.10	1.32	1.28
Public Assembly	1,181	935	1,333	534	0.09	0.07	0.06	0.06	1.34	0.83	0.91	0.62
Public Order and Safety	Q	124	252	Q	Q	0.06	0.06	Q	Q	0.57	0.88	Q
Religious Worship	120	222	464	236	0.12	0.09	0.08	0.08	0.27	0.24	0.40	0.26
Service	Q	648	1,351	369	Q	0.07	0.07	0.07	Q	0.79	0.97	0.83
Warehouse and Storage	1,155	1,130	1,641	903	0.09	0.07	0.07	0.09	0.69	0.44	0.43	0.49
Other	Q	Q	458	Q	Q	Q	0.06	Q	Q	Q	1.52	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year Constructed												
1919 or Before	801	870	252	247	0.11	0.07	0.08	0.06	0.66	0.59	0.47	0.51
1920 to 1945	1,194	1,422	1,063	495	0.10	0.07	0.07	0.08	0.77	0.60	0.64	0.71
1946 to 1959	2,362	1,225	2,028	1,374	0.09	0.07	0.07	0.08	1.16	0.57	0.73	0.75
1960 to 1969	2,646	1,887	3,087	2,630	0.10	0.06	0.06	0.08	1.29	0.76	0.94	0.92
1970 to 1979	2,575	2,032	4,873	3,980	0.09	0.07	0.06	0.09	1.41	0.88	1.14	1.19
1980 to 1989	3,121	2,988	6,469	3,200	0.10	0.06	0.06	0.08	1.63	1.07	1.06	1.20
1990 to 1999	2,434	2,509	5,504	3,157	0.09	0.07	0.06	0.07	1.77	0.90	1.24	1.31
Climate Zone: 45-Year Average												
Under 2,000 CDD and --												
More than 7,000 HDD	1,279	2,835	N	390	0.12	0.06	N	0.06	1.11	0.69	N	0.80
5,500-7,000 HDD	6,756	7,063	N	1,343	0.09	0.07	N	0.05	1.19	0.81	N	0.59
4,000-5,499 HDD	7,098	3,035	5,294	1,738	0.09	0.07	0.07	0.06	1.39	0.85	1.13	0.72
Fewer than 4,000 HDD	N	N	8,666	9,180	N	N	0.06	0.09	N	N	1.00	1.27
2,000 CDD or More and --												
Fewer than 4,000 HDD	N	N	9,314	2,431	N	N	0.06	0.09	N	N	0.96	1.31
Workers (main shift)												
Fewer than 5	1,087	1,669	3,490	1,799	0.11	0.08	0.07	0.09	0.72	0.46	0.68	0.75
5 to 9	1,392	1,166	1,692	1,211	0.12	0.08	0.07	0.09	1.01	0.69	0.98	0.82
10 to 19	2,131	1,343	2,998	1,967	0.10	0.08	0.07	0.10	1.45	0.70	1.02	1.16
20 to 49	2,275	1,827	4,571	2,395	0.11	0.07	0.07	0.08	1.45	0.71	1.10	0.96
50 to 99	2,112	1,571	2,873	2,566	0.10	0.06	0.06	0.08	1.16	0.84	1.00	1.10
100 to 249	2,122	2,157	3,511	1,893	0.09	0.06	0.06	0.07	1.25	0.97	1.23	1.21
250 or More	4,014	3,199	4,138	3,252	0.08	0.06	0.06	0.07	1.59	1.32	1.24	1.41

Table C12. Electricity Expenditures by Census Region, 1999

	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars) per kWh				Electricity Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Weekly Operating Hours												
39 or Fewer	168	399	722	429	0.12	0.09	0.08	0.08	0.25	0.26	0.33	0.45
40 to 48	1,552	1,550	3,550	2,147	0.11	0.07	0.07	0.08	0.83	0.52	0.67	0.72
49 to 60	2,967	2,163	4,728	3,122	0.10	0.07	0.07	0.08	1.06	0.61	1.02	0.97
61 to 84	2,963	2,960	4,120	3,039	0.10	0.07	0.07	0.08	1.19	0.96	0.98	1.16
85 to 167	2,776	2,805	4,560	2,967	0.10	0.07	0.06	0.08	1.66	1.11	1.55	1.66
Open Continuously	4,707	3,058	5,595	3,379	0.09	0.06	0.06	0.07	1.89	1.12	1.44	1.23
Ownership and Occupancy												
Nongovernment Owned	12,285	10,867	19,314	12,619	0.10	0.07	0.06	0.08	1.31	0.80	1.00	1.11
Owner Occupied	9,271	8,196	13,615	7,458	0.10	0.07	0.06	0.08	1.30	0.83	1.04	1.02
Nonowner Occupied	3,010	2,628	5,594	5,126	0.10	0.07	0.07	0.08	1.35	0.77	0.96	1.28
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	2,848	2,066	3,960	2,463	0.09	0.06	0.06	0.07	1.11	0.72	1.06	0.85
Federal	Q	Q	807	468	Q	0.05	0.06	0.05	Q	1.12	1.47	0.88
State	804	696	887	801	0.08	0.06	0.06	0.08	1.18	0.73	0.97	0.97
Local	1,481	1,014	2,266	1,194	0.09	0.07	0.07	0.08	0.94	0.64	1.00	0.77
Vacancy Status												
Completely Vacant	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant	3,279	2,880	4,544	3,058	0.09	0.07	0.06	0.08	1.23	0.74	0.84	0.98
Not At All Vacant	11,821	9,979	18,640	11,957	0.10	0.07	0.06	0.08	1.30	0.82	1.08	1.09
Number of Establishments												
One	9,633	8,687	15,227	9,628	0.10	0.07	0.06	0.08	1.28	0.77	1.04	1.01
2 to 5	1,940	2,316	2,980	2,062	0.09	0.07	0.07	0.08	0.95	0.80	0.87	0.99
6 to 10	623	448	1,662	1,759	0.10	0.07	0.06	0.09	1.26	0.78	1.15	1.66
11 to 20	1,041	544	1,474	787	0.09	0.06	0.06	0.08	1.48	0.94	1.19	1.07
More than 20	1,892	881	1,827	803	0.09	0.07	0.06	0.08	1.63	1.02	0.91	1.02
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than one may apply)												
Electricity	15,133	12,933	23,275	15,083	0.10	0.07	0.06	0.08	1.26	0.79	1.01	1.06
Natural Gas	9,545	10,785	14,956	11,146	0.09	0.07	0.06	0.08	1.31	0.80	1.05	1.06
Fuel Oil	5,610	2,650	4,796	2,108	0.09	0.06	0.06	0.07	1.04	1.09	1.28	1.24
District Heat	2,980	1,476	1,319	1,066	0.08	0.06	0.05	0.06	1.57	0.97	1.04	0.88
District Chilled Water	653	856	894	821	0.07	0.05	0.05	0.07	2.00	1.15	0.95	1.11
Propane	2,334	1,063	2,004	885	0.11	0.07	0.06	0.10	1.37	0.76	0.84	1.12
Other	522	465	776	750	0.09	0.06	0.07	0.09	0.90	0.77	1.34	1.35
Space-Heating Energy Source												
Electricity	6,678	6,128	15,182	7,343	0.09	0.06	0.06	0.08	1.44	0.95	1.10	1.00
Electricity Main	2,841	2,905	10,772	5,104	0.09	0.06	0.07	0.08	1.73	1.23	1.16	1.17
Electricity Secondary	3,838	3,223	4,410	2,240	0.09	0.07	0.06	0.07	1.29	0.79	0.96	0.74
Other Excluding Electricity	8,329	6,694	6,443	6,366	0.10	0.07	0.06	0.08	1.18	0.71	0.96	1.06
Buildings without Heating	Q	Q	1,650	1,373	Q	Q	0.07	0.11	Q	Q	0.67	1.54
Primary Space-Heating Energy Source												
Electricity	2,841	2,905	10,772	5,104	0.09	0.06	0.07	0.08	1.73	1.23	1.16	1.17
Natural Gas	6,134	8,312	8,769	7,439	0.10	0.07	0.06	0.08	1.25	0.73	0.99	0.98
Fuel Oil	2,178	Q	613	Q	0.11	Q	0.08	Q	0.78	Q	0.85	Q
District Heat	2,655	1,329	940	860	0.08	0.06	0.05	0.06	1.55	0.94	1.04	0.82
Propane	Q	183	465	Q	Q	0.08	0.07	Q	Q	0.29	0.57	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

Table C12. Electricity Expenditures by Census Region, 1999

	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars) per kWh				Electricity Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Cooling Energy Source												
Electricity	13,789	11,372	22,316	12,804	0.09	0.07	0.06	0.08	1.41	0.84	1.07	1.12
Other Excluding Electricity	782	1,021	570	1,191	0.09	0.06	0.05	0.07	1.43	1.14	0.89	1.41
Buildings without Cooling	562	540	Q	1,087	0.11	0.08	0.08	0.09	0.34	0.27	0.25	0.53
Water-Heating Energy Source												
Electricity	6,548	4,334	11,684	5,015	0.10	0.07	0.06	0.08	1.46	0.94	1.11	1.10
Other Excluding Electricity	7,755	7,323	9,164	9,051	0.09	0.07	0.06	0.08	1.27	0.81	1.07	1.10
Buildings without Water Heating	830	1,276	2,427	1,017	0.11	0.06	0.07	0.08	0.60	0.47	0.60	0.69
Cooking Energy Source												
Electricity	4,202	3,539	7,441	3,070	0.09	0.06	0.06	0.07	1.57	1.06	1.44	1.20
Other Excluding Electricity	3,581	2,415	4,011	2,614	0.09	0.07	0.06	0.09	1.40	0.89	1.18	1.15
Buildings without Cooking	7,350	6,978	11,823	9,399	0.10	0.07	0.07	0.08	1.09	0.67	0.82	0.99
Energy End Uses (more than one may apply)												
Buildings with Space Heating	15,007	12,822	21,625	13,709	0.09	0.07	0.06	0.08	1.29	0.81	1.05	1.02
Buildings with Cooling	14,572	12,393	22,886	13,995	0.09	0.07	0.06	0.08	1.41	0.86	1.06	1.14
Buildings with Water Heating	14,304	11,657	20,848	14,066	0.09	0.07	0.06	0.08	1.35	0.85	1.10	1.10
Buildings with Cooking	7,783	5,955	11,451	5,683	0.09	0.07	0.06	0.08	1.48	0.99	1.34	1.18
Buildings with Manufacturing	768	830	872	589	0.10	0.06	0.07	0.08	1.35	1.01	0.84	0.83
Buildings with Electricity Generation	4,238	3,195	5,583	2,494	0.08	0.06	0.06	0.07	1.36	1.15	1.37	1.29
Percent of Floorspace Heated												
Not Heated	Q	Q	1,650	1,373	Q	Q	0.07	0.11	Q	Q	0.67	1.54
1 to 50	662	673	1,349	1,848	0.10	0.08	0.07	0.09	0.63	0.43	0.53	0.77
51 to 99	2,291	1,821	4,695	2,577	0.09	0.07	0.06	0.07	1.36	0.78	1.08	1.07
100	12,054	10,327	15,581	9,284	0.10	0.07	0.06	0.08	1.35	0.86	1.14	1.08
Percent of Floorspace Cooled												
Not Cooled	562	540	Q	1,087	0.11	0.08	0.08	0.09	0.34	0.27	0.25	0.53
1 to 50	3,024	2,551	2,682	2,106	0.10	0.07	0.07	0.09	0.77	0.50	0.58	0.65
51 to 99	4,962	4,452	6,828	3,898	0.09	0.06	0.06	0.07	1.55	0.94	1.18	1.21
100	6,586	5,390	13,375	7,991	0.09	0.07	0.06	0.08	2.06	1.18	1.20	1.39
Percent Lit When Open												
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	997	1,163	1,784	1,451	0.11	0.08	0.07	0.10	0.62	0.47	0.59	0.70
51 to 99	5,314	4,988	6,914	4,358	0.10	0.06	0.06	0.08	1.30	0.86	1.08	1.00
100	8,806	6,712	14,331	9,215	0.09	0.07	0.06	0.08	1.45	0.88	1.12	1.20
Building Never Open/ Electricity Not Used	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Percent Lit When Closed												
Zero	2,372	2,714	4,756	4,192	0.11	0.08	0.07	0.09	0.70	0.52	0.65	0.87
1 to 50	7,373	6,813	11,058	6,551	0.10	0.07	0.07	0.08	1.28	0.85	1.01	1.05
51 to 100	Q	348	1,866	961	Q	0.06	0.07	0.08	Q	0.99	1.88	1.94
Building Never Closed/ Electricity Not Used	4,707	3,058	5,595	3,379	0.09	0.06	0.06	0.07	1.89	1.12	1.44	1.23
Heating Equipment (more than one may apply)												
Heat Pumps	1,558	1,034	5,363	2,288	0.08	0.05	0.06	0.08	1.31	1.02	1.17	1.07
Furnaces	2,158	3,822	3,159	1,583	0.10	0.08	0.07	0.07	0.96	0.66	0.80	0.64
Individual Space Heaters	4,085	3,528	4,802	2,695	0.09	0.06	0.06	0.07	1.15	0.76	0.88	0.74
District Heat	2,950	1,420	1,117	944	0.08	0.06	0.05	0.06	1.57	0.94	1.09	0.84
Boilers	5,532	4,520	5,001	3,795	0.09	0.06	0.06	0.07	1.01	0.76	1.19	0.98
Packaged Heating Units	6,980	5,377	11,406	7,307	0.09	0.07	0.06	0.08	1.73	1.06	1.09	1.18
Other	855	1,131	1,604	811	0.08	0.07	0.06	0.07	1.11	1.02	1.15	1.01

Table C12. Electricity Expenditures by Census Region, 1999

	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars) per kWh				Electricity Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Cooling Equipment (more than one may apply)												
Residential-Type Central Air Conditioners	1,040	2,091	3,055	927	0.09	0.07	0.06	0.08	1.09	0.71	0.93	0.80
Heat Pumps	1,370	1,104	5,364	2,578	0.08	0.05	0.06	0.08	1.13	1.04	1.17	1.14
Individual Air Conditioners	3,902	2,439	3,821	1,632	0.09	0.07	0.06	0.08	1.00	0.66	0.84	0.77
District Chilled Water	653	856	894	821	0.07	0.05	0.05	0.07	2.00	1.15	0.95	1.11
Central Chillers	4,057	3,607	5,909	3,469	0.08	0.06	0.06	0.07	1.46	1.15	1.37	1.31
Packaged Air Conditioning Units	10,699	7,922	14,911	9,527	0.09	0.07	0.06	0.08	1.61	0.97	1.07	1.23
Swamp Coolers	Q	Q	351	1,567	Q	Q	0.06	0.08	Q	Q	1.04	0.97
Other	Q	Q	408	Q	Q	Q	0.06	Q	Q	Q	1.19	Q
Main Equipment Replaced Since 1995 (more than one may apply)												
Heating	2,384	2,561	5,280	3,197	0.10	0.07	0.06	0.08	1.30	0.79	1.04	1.04
Cooling	3,849	3,322	7,427	3,783	0.10	0.07	0.06	0.08	1.25	0.87	1.05	1.11
Lighting Equipment Types (more than one may apply)												
Incandescent	8,951	7,438	14,012	8,944	0.09	0.07	0.06	0.08	1.27	0.75	1.08	1.09
Standard Fluorescent	14,183	12,290	21,826	14,317	0.09	0.07	0.06	0.08	1.25	0.83	1.05	1.08
Compact Fluorescent	5,795	5,621	7,541	5,313	0.09	0.06	0.06	0.07	1.47	1.02	1.17	1.11
High Intensity Discharge	5,051	4,796	6,844	3,052	0.09	0.06	0.06	0.07	1.15	0.87	1.17	0.88
Halogen	5,585	4,336	6,375	4,360	0.09	0.06	0.06	0.07	1.54	0.98	1.09	1.08
Other	Q	Q	733	Q	Q	Q	0.07	Q	Q	Q	1.66	Q
Water Heating Equipment												
Centralized System	9,545	6,801	12,508	9,157	0.10	0.07	0.06	0.08	1.38	0.75	1.09	1.13
Distributed System	2,153	1,839	4,269	3,121	0.10	0.07	0.06	0.08	1.18	0.79	1.04	1.19
Combination of Centralized and Distributed System	2,606	3,017	4,071	1,788	0.08	0.06	0.06	0.07	1.44	1.29	1.20	0.85
Commercial Refrigeration Equipment (more than one may apply)												
Any Equipment	8,851	6,722	11,620	7,089	0.09	0.06	0.06	0.08	1.60	1.08	1.33	1.38
Walk-In Units	7,395	5,300	9,768	6,026	0.09	0.06	0.06	0.08	1.71	1.16	1.43	1.51
Cases or Cabinets	7,748	5,784	10,188	6,336	0.09	0.06	0.06	0.08	1.64	1.07	1.36	1.46
None	6,282	6,211	11,655	7,994	0.10	0.07	0.07	0.08	0.98	0.61	0.81	0.87
Personal Computers												
None	584	1,076	1,925	1,178	0.12	0.08	0.07	0.09	0.52	0.47	0.58	0.95
1 to 4	2,920	2,729	4,670	2,690	0.10	0.08	0.07	0.09	1.27	0.73	0.98	0.88
5 to 9	1,144	1,016	3,163	1,625	0.11	0.07	0.07	0.09	1.41	0.78	1.10	1.06
10 to 19	1,985	986	2,839	1,938	0.11	0.07	0.07	0.09	1.13	0.63	1.05	1.30
20 to 49	2,129	1,324	2,826	1,884	0.10	0.06	0.06	0.08	1.53	0.68	1.09	0.87
50 to 99	987	1,348	1,765	1,501	0.10	0.07	0.06	0.08	1.09	0.82	0.93	1.05
100 to 249	1,928	1,972	2,338	1,438	0.08	0.06	0.06	0.06	1.21	1.08	1.08	1.18
250 or More	3,458	2,484	3,750	2,829	0.08	0.06	0.06	0.07	1.66	1.20	1.35	1.31
Photocopiers												
None	3,042	3,208	6,676	4,689	0.11	0.08	0.07	0.09	0.92	0.67	0.87	1.10
One	2,444	2,280	5,250	2,867	0.10	0.07	0.07	0.08	1.50	0.72	1.04	0.93
2 to 4	3,525	2,843	5,158	3,000	0.10	0.07	0.06	0.08	1.18	0.67	1.01	0.91
5 to 9	1,097	1,646	1,532	1,351	0.08	0.06	0.06	0.08	1.11	1.04	0.97	1.09
10 or More	5,026	2,957	4,659	3,175	0.08	0.06	0.06	0.07	1.64	1.13	1.26	1.33

Table C12. Electricity Expenditures by Census Region, 1999

	Total Electricity Expenditures (million dollars)				Electricity Expenditures (dollars) per kWh				Electricity Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Other Electronic Equipment (more than one may apply)												
Laser Printers	12,301	9,809	17,415	11,514	0.09	0.06	0.06	0.08	1.35	0.88	1.11	1.08
FAX Machines	14,227	11,562	20,602	13,270	0.09	0.07	0.06	0.08	1.36	0.86	1.10	1.10
Medical Diagnostic Equipment	577	768	1,544	885	0.07	0.06	0.05	0.07	1.58	1.31	1.62	1.51
Annual Consumption (kilowatthours)												
10,000 or Less	92	124	124	85	0.15	0.12	0.10	0.12	0.18	0.13	0.10	0.18
10,001 to 50,000	640	932	1,271	1,013	0.13	0.09	0.09	0.10	0.45	0.33	0.44	0.49
50,001 to 100,000	960	1,082	1,762	1,116	0.12	0.09	0.08	0.09	0.77	0.65	0.71	0.69
100,001 to 500,000	4,285	3,014	7,103	4,521	0.11	0.07	0.07	0.09	1.59	0.79	1.11	1.16
500,001 to 1,000,000	1,564	1,472	2,395	2,094	0.10	0.07	0.07	0.08	1.23	0.80	1.11	1.23
1,000,001 to 5,000,000	3,396	3,270	6,639	3,927	0.09	0.06	0.06	0.07	1.42	1.02	1.30	1.33
Over 5,000,000	4,196	3,039	3,981	2,325	0.08	0.06	0.05	0.07	1.73	1.49	1.43	1.48
Provider of Purchased Electricity (more than one may apply)												
Local Utility	13,028	12,305	22,365	13,838	0.10	0.07	0.06	0.08	1.24	0.79	1.00	1.01
Some Other Provider	2,053	406	324	Q	0.09	0.07	0.07	0.08	1.48	0.91	0.54	1.85

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C13. Electricity Consumption and Conditional Energy Intensity, 1999

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
All Buildings	205	362	341	14,001	30,052	21,663	14.6	12.0	15.8
Principal Building Activity									
Education	6	44	25	782	4,831	3,038	8.1	9.1	8.3
Food Sales	27	19	Q	439	485	Q	60.4	39.8	Q
Food Service	52	Q	Q	1,296	Q	Q	40.5	Q	Q
Health Care	5	14	49	407	672	1,838	11.6	20.6	26.9
Inpatient	N	Q	46	N	Q	1,683	N	Q	27.3
Outpatient	5	9	Q	407	490	Q	11.6	18.7	Q
Lodging	7	31	20	405	2,336	1,780	17.5	13.1	11.1
Mercantile	29	68	56	1,971	4,630	3,797	14.8	14.6	14.7
Retail (Other Than Mall)	22	23	19	1,649	2,375	742	13.6	9.7	25.8
Enclosed and Strip Malls	Q	45	37	Q	2,255	3,055	Q	19.8	12.1
Office	31	79	114	2,275	4,628	5,140	13.8	17.1	22.2
Public Assembly	8	28	20	943	2,254	1,143	8.2	12.5	17.6
Public Order and Safety	Q	7	Q	Q	557	Q	Q	12.8	Q
Religious Worship	3	9	Q	1,003	2,353	Q	2.5	4.0	Q
Service	17	16	Q	1,756	1,265	Q	9.9	12.8	Q
Warehouse and Storage	Q	24	30	1,613	4,695	3,570	6.5	5.0	8.5
Other	Q	12	11	Q	445	390	Q	28.0	29.1
Vacant	Q	Q	Q	Q	416	Q	Q	2.3	Q
Year Constructed									
1919 or Before	8	10	Q	1,253	1,816	645	6.5	5.6	12.9
1920 to 1945	16	20	18	1,496	2,784	2,001	10.6	7.1	9.2
1946 to 1959	20	41	29	2,555	4,092	2,147	7.8	10.1	13.7
1960 to 1969	33	53	51	1,975	4,888	3,822	16.8	10.9	13.2
1970 to 1979	42	71	69	2,395	5,421	3,934	17.7	13.0	17.5
1980 to 1989	43	92	86	2,031	6,459	4,994	21.1	14.3	17.3
1990 to 1999	42	75	79	2,296	4,591	4,120	18.4	16.2	19.2
Census Region and Division									
Northeast	31	52	76	2,066	4,887	5,011	15.2	10.7	15.1
New England	7	14	18	489	1,750	1,376	13.6	8.1	13.0
Middle Atlantic	25	38	58	1,577	3,137	3,635	15.7	12.1	15.8
Midwest	38	70	86	3,615	6,987	5,786	10.6	10.0	14.9
East North Central	28	45	53	2,476	4,511	3,954	11.3	9.9	13.5
West North Central	10	25	33	1,140	2,477	1,832	8.9	10.1	18.0
South	89	154	123	5,273	10,981	6,822	16.8	14.0	18.0
South Atlantic	36	76	68	2,272	4,967	3,578	15.7	15.3	19.1
East South Central	22	38	20	1,094	2,865	1,190	20.0	13.2	16.6
West South Central	31	40	35	1,907	3,149	2,054	16.4	12.8	17.0
West	46	86	56	3,046	7,196	4,044	15.2	12.0	14.0
Mountain	12	24	16	916	2,216	1,160	13.0	10.8	13.5
Pacific	34	63	41	2,130	4,981	2,884	16.1	12.5	14.1
Climate Zone: 45-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	19	22	24	1,535	2,787	1,428	12.1	7.9	16.9
5,500-7,000 HDD	34	74	89	2,724	7,292	6,690	12.6	10.1	13.2
4,000-5,499 HDD	53	78	100	3,643	6,119	6,031	14.5	12.8	16.7
Fewer than 4,000 HDD	55	110	77	3,099	8,273	4,549	17.6	13.4	17.0
2,000 CDD or More and --									
Fewer than 4,000 HDD	44	78	51	3,000	5,580	2,966	14.8	13.9	17.1

Table C13. Electricity Consumption and Conditional Energy Intensity, 1999

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Workers (main shift)									
Fewer than 5	73	24	1	7,017	5,189	544	10.4	4.5	2.0
5 to 9	40	22	2	2,782	3,099	393	14.2	7.2	4.4
10 to 19	48	51	4	2,582	4,708	737	18.5	10.8	5.5
20 to 49	37	98	13	1,409	7,706	1,699	26.6	12.7	7.6
50 to 99	Q	82	35	Q	5,681	3,074	Q	14.5	11.3
100 to 249	Q	64	84	Q	2,832	5,457	Q	22.5	15.4
250 or More	N	21	203	N	837	9,759	N	25.7	20.8
Weekly Operating Hours									
39 or Fewer	10	8	Q	2,658	2,120	Q	3.7	3.8	Q
40 to 48	38	58	18	4,191	6,959	1,920	9.0	8.4	9.1
49 to 60	39	71	60	3,004	7,423	3,759	12.9	9.6	16.1
61 to 84	34	68	70	2,003	5,368	5,009	17.1	12.7	14.0
85 to 167	58	71	49	1,280	3,797	3,853	45.0	18.7	12.8
Open Continuously	27	85	142	864	4,385	6,586	30.7	19.4	21.6
Ownership and Occupancy									
Nongovernment Owned	188	292	263	12,693	24,179	16,767	14.8	12.1	15.7
Owner Occupied	131	190	208	9,010	15,971	12,525	14.6	11.9	16.6
Nonowner Occupied	55	100	55	3,402	7,886	4,153	16.2	12.7	13.4
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	17	70	78	1,307	5,872	4,897	12.8	12.0	15.9
Federal	Q	10	23	Q	548	1,007	Q	18.7	22.5
State	Q	21	23	Q	1,692	1,484	Q	12.3	15.8
Local	11	39	32	946	3,632	2,405	11.7	10.8	13.2
Vacancy Status									
Completely Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant	17	67	106	1,917	5,861	7,315	8.7	11.4	14.5
Not At All Vacant	186	294	234	11,575	23,775	14,161	16.1	12.4	16.6
Number of Establishments									
One	171	238	183	10,973	20,437	11,428	15.6	11.6	16.0
2 to 5	27	55	44	2,487	4,896	3,059	10.8	11.2	14.3
6 to 10	Q	36	19	Q	2,173	1,219	Q	16.5	15.6
11 to 20	Q	24	29	Q	1,591	1,661	Q	15.4	17.4
More than 20	Q	8	66	Q	590	4,163	Q	13.7	15.8
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than one may apply)									
Electricity	205	362	341	14,001	30,052	21,663	14.6	12.0	15.8
Natural Gas	132	253	258	8,625	20,570	16,301	15.3	12.3	15.8
Fuel Oil	9	53	165	1,203	3,570	8,503	7.4	14.7	19.4
District Heat	Q	30	71	Q	2,007	3,613	Q	15.1	19.7
District Chilled Water	Q	16	38	Q	927	1,730	Q	17.4	22.1
Propane	26	26	24	1,621	2,637	2,032	16.3	9.8	12.0
Other	Q	12	14	Q	890	963	Q	13.5	14.4
Space-Heating Energy Source									
Electricity	92	207	199	5,459	15,069	11,763	16.9	13.8	16.9
Electricity Main	64	139	100	3,062	8,667	5,898	20.9	16.0	16.9
Electricity Secondary	28	69	99	2,397	6,402	5,866	11.8	10.7	16.9
Other Excluding Electricity	97	139	135	7,286	12,949	9,040	13.3	10.7	14.9
Buildings without Heating	15	16	8	1,256	2,034	861	12.2	7.7	9.2

Table C13. Electricity Consumption and Conditional Energy Intensity, 1999

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Primary Space-Heating Energy Source									
Electricity	64	139	100	3,062	8,667	5,898	20.9	16.0	16.9
Natural Gas	101	165	156	7,344	14,997	10,360	13.8	11.0	15.1
Fuel Oil	7	10	12	1,038	1,559	1,113	7.2	6.4	10.9
District Heat	Q	25	64	Q	1,645	3,301	Q	15.2	19.4
Propane	Q	6	Q	1,084	980	Q	14.1	5.6	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Source									
Electricity	183	334	309	10,723	25,930	18,893	17.1	12.9	16.3
Other Excluding Electricity	Q	17	27	Q	1,117	1,443	Q	15.0	18.9
Buildings without Cooling	13	11	5	2,909	3,004	1,328	4.4	3.8	4.1
Water-Heating Energy Source									
Electricity	85	151	142	4,593	10,985	8,593	18.6	13.7	16.5
Other Excluding Electricity	96	179	180	5,434	14,990	11,519	17.7	11.9	15.7
Buildings without Water Heating	23	33	19	3,973	4,077	1,551	5.8	8.0	12.3
Cooking Energy Source									
Electricity	51	78	144	1,148	4,838	7,747	44.7	16.1	18.5
Other Excluding Electricity	26	58	84	1,220	4,109	5,620	21.7	14.1	14.9
Buildings without Cooking	127	226	114	11,633	21,105	8,297	10.9	10.7	13.7
Energy End Uses (more than one may apply)									
Buildings with Space Heating	189	346	333	12,745	28,018	20,803	14.8	12.4	16.0
Buildings with Cooling	192	351	336	11,092	27,047	20,335	17.3	13.0	16.5
Buildings with Water Heating	182	330	322	10,028	25,974	20,112	18.1	12.7	16.0
Buildings with Cooking	78	136	227	2,367	8,947	13,367	32.8	15.2	17.0
Buildings with Manufacturing	4	15	24	553	1,509	1,064	7.9	10.1	22.5
Buildings with Electricity Generation	Q	69	169	Q	3,166	8,339	Q	21.7	20.3
Percent of Floorspace Heated									
Not Heated	15	16	8	1,256	2,034	861	12.2	7.7	9.2
1 to 50	12	24	20	2,182	3,567	1,816	5.6	6.7	11.0
51 to 99	39	61	64	1,927	5,025	3,785	20.0	12.1	16.9
100	138	262	249	8,636	19,426	15,202	16.0	13.5	16.4
Percent of Floorspace Cooled									
Not Cooled	13	11	5	2,909	3,004	1,328	4.4	3.8	4.1
1 to 50	29	58	41	3,318	8,920	4,608	8.8	6.5	8.8
51 to 99	46	107	141	2,273	7,021	7,673	20.4	15.2	18.3
100	116	186	154	5,501	11,106	8,054	21.2	16.8	19.2
Percent Lit When Open									
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	29	30	7	3,075	4,719	1,392	9.4	6.3	4.7
51 to 99	65	114	115	4,113	9,755	6,797	15.9	11.7	16.9
100	108	216	219	6,092	14,839	13,302	17.7	14.6	16.5
Building Never Open/ Electricity Not Used	Q	Q	Q	Q	Q	Q	Q	Q	Q
Percent Lit When Closed									
Zero	62	84	26	7,199	10,435	3,137	8.6	8.1	8.4
1 to 50	99	173	156	5,406	14,482	11,062	18.4	11.9	14.1
51 to 100	Q	20	17	Q	750	878	Q	27.0	18.8
Building Never Closed/ Electricity Not Used	27	85	142	864	4,385	6,586	30.7	19.4	21.6

Table C13. Electricity Consumption and Conditional Energy Intensity, 1999

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Heating Equipment (more than one may apply)									
Heat Pumps	28	62	61	1,424	4,158	3,341	19.5	15.0	18.3
Furnaces	46	57	36	5,118	6,438	2,892	8.9	8.9	12.6
Individual Space Heaters	24	87	103	2,505	7,732	7,084	9.8	11.3	14.6
District Heat	Q	28	70	Q	1,828	3,545	Q	15.4	19.7
Boilers	18	91	158	1,504	8,327	9,683	12.1	11.0	16.3
Packaged Heating Units	95	177	159	4,080	11,951	9,713	23.2	14.8	16.4
Other	7	19	41	515	1,422	2,135	14.0	13.4	19.1
Cooling Equipment (more than one may apply)									
Residential-Type Central Air Conditioners	28	35	37	2,496	3,501	2,333	11.3	10.0	15.9
Heat Pumps	28	62	62	1,406	4,167	3,574	20.1	15.0	17.4
Individual Air Conditioners	25	62	72	2,358	6,679	5,239	10.7	9.3	13.8
District Chilled Water	Q	16	38	Q	927	1,730	Q	17.4	22.1
Central Chillers	Q	63	196	Q	3,215	9,517	Q	19.7	20.5
Packaged Air Conditioning Units	124	244	217	5,810	17,315	13,402	21.3	14.1	16.2
Swamp Coolers	Q	13	10	435	1,009	775	Q	12.6	13.3
Other	Q	7	15	Q	452	707	Q	16.4	20.5
Main Equipment Replaced Since 1995 (more than one may apply)									
Heating	47	89	47	3,082	6,831	3,307	15.4	13.0	14.1
Cooling	54	111	88	3,037	8,726	5,628	17.9	12.7	15.6
Lighting Equipment Types (more than one may apply)									
Incandescent	111	207	225	6,993	16,939	14,223	15.8	12.2	15.8
Standard Fluorescent	182	348	332	11,876	27,684	20,784	15.3	12.6	16.0
Compact Fluorescent	38	110	203	1,846	7,480	11,340	20.6	14.6	17.9
High Intensity Discharge	14	95	191	908	7,026	11,290	15.1	13.6	16.9
Halogen	34	89	170	1,590	6,536	9,800	21.6	13.5	17.3
Other	Q	4	7	Q	394	464	Q	10.4	15.3
Water Heating Equipment									
Centralized System	139	207	155	7,891	17,503	10,186	17.6	11.8	15.3
Distributed System	27	63	66	1,781	4,667	4,450	15.4	13.5	14.8
Combination of Centralized and Distributed System	15	59	101	356	3,805	5,476	43.3	15.6	18.4
Commercial Refrigeration Equipment (more than one may apply)									
Any Equipment	93	145	247	2,505	9,110	14,036	37.1	15.9	17.6
Walk-In Units	85	113	208	1,794	5,926	11,992	47.4	19.1	17.4
Cases or Cabinets	86	124	215	2,290	7,409	12,302	37.3	16.8	17.4
None	112	217	94	11,496	20,941	7,627	9.7	10.4	12.4
Personal Computers									
None	45	11	1	4,958	2,450	553	9.1	4.4	Q
1 to 4	86	69	8	5,315	7,464	1,074	16.2	9.2	7.5
5 to 9	36	48	7	1,688	4,200	641	21.2	11.3	10.3
10 to 19	26	52	18	1,534	4,084	1,896	17.2	12.7	9.4
20 to 49	10	62	40	476	4,721	2,890	21.5	13.1	13.8
50 to 99	Q	46	32	Q	3,514	2,327	Q	13.0	13.7
100 to 249	Q	56	63	Q	2,878	3,936	Q	19.6	16.1
250 or More	N	19	172	N	741	8,347	N	25.9	20.7

Table C13. Electricity Consumption and Conditional Energy Intensity, 1999

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Photocopiers									
None	120	82	15	8,902	9,168	1,939	13.5	9.0	7.8
One	64	87	18	3,724	7,537	1,667	17.1	11.6	10.9
2 to 4	18	113	69	1,165	8,936	5,519	15.6	12.6	12.5
5 to 9	Q	39	42	Q	2,236	2,937	Q	17.2	14.4
10 or More	N	42	197	N	2,173	9,601	N	19.1	20.5
Other Electronic Equipment (more than one may apply)									
Laser Printers	94	296	328	5,396	21,598	19,573	17.4	13.7	16.8
FAX Machines	155	333	338	8,525	25,429	20,810	18.1	13.1	16.3
Medical Diagnostic Equipment	Q	11	48	Q	527	1,700	Q	21.0	28.2
Annual Consumption (kilowatthours)									
10,000 or Less	4	Q	Q	2,504	669	Q	1.4	0.3	Q
10,001 to 50,000	35	6	Q	5,798	3,247	Q	6.0	1.8	Q
50,001 to 100,000	40	15	Q	2,706	4,052	Q	14.6	3.6	Q
100,001 to 500,000	115	116	3	2,873	12,539	1,398	40.2	9.2	2.0
500,001 to 1,000,000	Q	79	9	Q	4,782	2,066	Q	16.6	4.4
1,000,001 to 5,000,000	Q	140	116	Q	4,707	8,951	Q	29.8	13.0
Over 5,000,000	N	Q	213	N	Q	8,767	N	Q	24.3
Provider of Purchased Electricity (more than one may apply)									
Local Utility	192	342	310	13,378	28,799	19,866	14.3	11.9	15.6
Some Other Provider	Q	15	28	Q	1,110	1,510	Q	13.8	18.9

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1999

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
All Buildings	171	540	196	18,788	35,920	11,007	9.1	15.0	17.8
Building Floorspace (Square Feet)									
1,001 to 5,000	24	71	26	2,222	2,944	1,114	10.9	24.1	23.7
5,001 to 10,000	20	47	16	3,081	3,457	1,182	6.4	13.7	13.4
10,001 to 25,000	30	65	14	3,835	5,916	1,091	7.7	11.1	12.4
25,001 to 50,000	21	64	24	2,427	5,109	1,638	8.5	12.6	14.4
50,001 to 100,000	21	86	37	2,430	5,743	1,862	8.6	15.1	20.1
100,001 to 200,000	16	82	34	1,779	4,816	1,651	8.8	17.1	20.6
200,001 to 500,000	17	59	24	1,695	3,756	1,338	10.2	15.7	17.6
Over 500,000	23	65	22	1,318	4,179	1,131	17.5	15.5	19.2
Principal Building Activity									
Education	23	40	13	3,247	4,165	1,239	7.1	9.5	10.3
Food Sales	Q	22	19	Q	443	355	Q	50.6	53.9
Food Service	12	37	Q	608	952	Q	19.4	39.1	Q
Health Care	9	49	10	548	1,897	473	16.0	26.0	21.3
Inpatient	8	39	Q	434	1,277	Q	17.7	30.3	Q
Outpatient	Q	11	6	Q	620	319	Q	17.0	18.6
Lodging	8	40	10	808	2,996	716	10.1	13.3	13.3
Mercantile	23	89	41	2,582	5,786	2,030	8.9	15.4	20.1
Retail (Other Than Mall)	14	26	25	1,901	1,726	1,139	7.4	14.8	22.0
Enclosed and Strip Malls	9	63	16	681	4,060	891	13.3	15.6	17.6
Office	43	148	33	2,907	7,306	1,830	14.9	20.3	18.2
Public Assembly	13	30	13	1,395	2,209	736	9.7	13.4	17.5
Public Order and Safety	3	5	Q	392	411	Q	8.0	12.2	Q
Religious Worship	3	7	Q	1,301	1,748	Q	2.4	4.2	Q
Service	11	24	Q	1,253	1,768	Q	9.1	13.8	Q
Warehouse and Storage	9	36	19	2,509	5,342	2,028	3.7	6.7	9.6
Other	Q	12	Q	Q	603	Q	Q	19.9	Q
Vacant	Q	Q	Q	797	Q	Q	Q	Q	Q
Census Region and Division									
Northeast	46	85	28	4,798	5,790	1,376	9.6	14.7	20.2
New England	9	23	6	1,211	1,971	433	7.8	11.7	14.3
Middle Atlantic	36	62	22	3,587	3,819	943	10.2	16.3	22.9
Midwest	49	107	38	5,999	7,601	2,788	8.2	14.0	13.7
East North Central	32	68	26	4,377	4,697	1,866	7.3	14.4	14.1
West North Central	17	39	12	1,622	2,904	922	10.7	13.4	13.0
South	48	230	87	4,971	13,667	4,439	9.7	16.8	19.7
South Atlantic	18	115	46	1,989	6,525	2,303	9.3	17.7	19.9
East South Central	12	47	Q	1,038	3,067	1,044	11.8	15.4	19.1
West South Central	18	67	22	1,944	4,074	1,092	9.1	16.5	19.8
West	28	119	42	3,020	8,862	2,404	9.2	13.4	17.7
Mountain	10	31	11	1,074	2,519	698	8.9	12.3	15.5
Pacific	18	88	32	1,946	6,343	1,706	9.4	13.8	18.6
Climate Zone: 45-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	12	40	13	1,886	2,947	918	6.2	13.5	14.1
5,500-7,000 HDD	49	104	43	6,010	8,107	2,589	8.2	12.9	16.7
4,000-5,499 HDD	55	131	46	5,304	7,973	2,516	10.3	16.4	18.3
Fewer than 4,000 HDD	31	150	61	3,070	9,643	3,209	10.1	15.6	19.1
2,000 CDD or More and --									
Fewer than 4,000 HDD	25	115	33	2,519	7,251	1,776	9.8	15.9	18.3

Table C14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1999

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Workers (main shift)									
Fewer than 5	26	53	19	5,752	5,372	1,626	4.5	9.8	11.9
5 to 9	15	40	9	2,026	3,419	829	7.4	11.7	10.4
10 to 19	25	57	21	2,781	4,093	1,153	9.0	13.9	17.9
20 to 49	29	86	34	2,953	5,772	2,089	9.8	14.8	16.4
50 to 99	16	77	29	1,638	5,660	1,601	10.0	13.7	17.9
100 to 249	19	90	40	1,580	4,990	1,786	12.3	17.9	22.4
250 or More	41	139	45	2,057	6,614	1,925	19.9	21.0	23.2
Weekly Operating Hours									
39 or Fewer	6	12	Q	2,499	2,384	Q	2.5	5.1	Q
40 to 48	30	66	17	4,927	6,373	1,771	6.2	10.4	9.5
49 to 60	40	97	34	4,248	7,646	2,292	9.3	12.6	14.8
61 to 84	32	110	30	2,837	7,363	2,180	11.3	14.9	13.9
85 to 167	27	104	48	1,819	5,129	1,981	14.6	20.2	24.0
Open Continuously	36	152	66	2,458	7,025	2,352	14.7	21.6	28.1
Ownership and Occupancy									
Nongovernment Owned	125	454	163	14,624	29,964	9,052	8.6	15.2	18.0
Owner Occupied	94	318	117	10,865	20,448	6,193	8.7	15.6	18.9
Nonowner Occupied	30	135	46	3,440	9,199	2,802	8.8	14.7	16.3
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	46	86	33	4,164	5,956	1,956	11.0	14.5	16.9
Federal	15	14	7	826	642	243	18.7	21.8	26.7
State	13	25	9	1,177	1,650	554	11.3	15.1	16.1
Local	17	47	18	2,161	3,664	1,158	7.9	12.9	15.3
Vacancy Status									
Completely Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant	33	119	38	3,749	8,571	2,773	8.7	13.9	13.8
Not At All Vacant	137	420	158	14,242	27,055	8,213	9.6	15.5	19.2
Number of Establishments									
One	118	334	141	13,129	22,103	7,607	9.0	15.1	18.5
2 to 5	25	75	26	3,372	5,326	1,745	7.3	14.1	14.7
6 to 10	9	43	8	679	2,410	479	12.9	17.8	16.0
11 to 20	Q	37	9	Q	2,256	498	Q	16.5	18.9
More than 20	11	50	13	709	3,479	621	16.1	14.4	20.4
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than one may apply)									
Electricity	171	540	196	18,788	35,920	11,007	9.1	15.0	17.8
Natural Gas	123	369	151	13,034	24,386	8,076	9.4	15.1	18.7
Fuel Oil	42	142	43	3,579	7,590	2,108	11.7	18.7	20.2
District Heat	34	54	Q	2,338	2,876	677	14.3	18.7	26.3
District Chilled Water	14	29	13	794	1,550	407	17.1	18.4	32.8
Propane	10	49	17	1,410	3,586	1,295	7.4	13.8	13.1
Other	9	18	6	765	1,204	353	12.1	14.6	18.0
Space-Heating Energy Source									
Electricity	83	304	111	7,313	19,045	5,933	11.4	16.0	18.7
Electricity Main	35	190	77	2,769	11,150	3,708	12.6	17.0	20.9
Electricity Secondary	49	114	34	4,544	7,896	2,225	10.7	14.4	15.2
Other Excluding Electricity	85	206	79	10,205	14,403	4,667	8.3	14.3	17.0
Buildings without Heating	3	30	Q	1,271	2,473	Q	2.6	12.1	Q

Table C14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1999

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Primary Space-Heating Energy Source									
Electricity	35	190	77	2,769	11,150	3,708	12.6	17.0	20.9
Natural Gas	89	241	93	10,176	16,847	5,677	8.7	14.3	16.3
Fuel Oil	10	18	Q	1,745	1,707	Q	5.6	10.3	Q
District Heat	30	45	15	2,151	2,497	428	14.0	18.2	34.1
Propane	4	14	Q	519	1,074	Q	6.8	13.0	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Source									
Electricity	148	501	177	14,026	31,749	9,770	10.5	15.8	18.1
Other Excluding Electricity	12	25	16	869	1,474	585	13.3	17.2	27.1
Buildings without Cooling	12	14	Q	3,893	2,697	Q	3.1	5.3	Q
Water-Heating Energy Source									
Electricity	49	242	87	4,820	14,952	4,399	10.2	16.2	19.7
Other Excluding Electricity	101	259	95	10,108	16,788	5,047	10.0	15.4	18.8
Buildings without Water Heating	21	39	15	3,859	4,180	1,561	5.4	9.3	9.4
Cooking Energy Source									
Electricity	47	171	56	3,024	8,251	2,458	15.4	20.7	22.6
Other Excluding Electricity	38	86	44	3,495	5,509	1,945	10.8	15.6	22.6
Buildings without Cooking	87	284	97	12,269	22,161	6,605	7.1	12.8	14.6
Energy End Uses (more than one may apply)									
Buildings with Space Heating	168	510	190	17,517	33,448	10,600	9.6	15.3	18.0
Buildings with Cooling	159	526	193	14,895	33,224	10,355	10.7	15.8	18.6
Buildings with Water Heating	150	501	181	14,928	31,740	9,446	10.1	15.8	19.2
Buildings with Cooking	84	257	100	6,519	13,759	4,403	13.0	18.7	22.6
Buildings with Manufacturing	10	25	9	933	1,709	485	10.5	14.6	18.3
Buildings with Electricity Generation	35	151	59	1,992	7,149	2,741	17.8	21.1	21.6
Percent of Floorspace Heated									
Not Heated	3	30	Q	1,271	2,473	Q	2.6	12.1	Q
1 to 50	14	32	9	2,617	3,749	1,198	5.5	8.6	7.7
51 to 99	33	94	37	3,218	5,742	1,777	10.3	16.3	20.6
100	121	384	145	11,683	23,957	7,625	10.3	16.0	19.0
Percent of Floorspace Cooled									
Not Cooled	12	14	Q	3,893	2,697	Q	3.1	5.3	Q
1 to 50	37	64	27	6,241	8,052	2,553	6.0	7.9	10.4
51 to 99	57	175	62	4,052	9,818	3,096	14.1	17.8	20.0
100	65	288	104	4,603	15,354	4,706	14.0	18.8	22.1
Percent Lit When Open									
Zero	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	19	31	15	4,301	3,928	957	4.5	7.8	15.7
51 to 99	66	183	46	6,025	11,398	3,242	10.9	16.1	14.0
100	85	323	135	7,583	19,981	6,670	11.2	16.2	20.3
Building Never Open/ Electricity Not Used	Q	Q	Q	863	Q	Q	Q	Q	Q
Percent Lit When Closed									
Zero	36	101	35	6,811	10,503	3,458	5.3	9.6	10.1
1 to 50	92	264	72	9,247	17,259	4,444	10.0	15.3	16.2
51 to 100	Q	23	23	Q	1,134	753	Q	20.6	31.1
Building Never Closed/ Electricity Not Used	36	152	66	2,458	7,025	2,352	14.7	21.6	28.1

Table C14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1999

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Heating Equipment (more than one may apply)									
Heat Pumps	25	90	36	1,764	5,363	1,796	14.2	16.8	20.1
Furnaces	35	76	28	4,847	7,215	2,387	7.2	10.5	11.9
Individual Space Heaters	53	120	43	5,337	9,268	2,715	9.9	12.9	15.7
District Heat	33	51	16	2,309	2,726	499	14.2	18.5	31.9
Boilers	55	165	47	6,415	10,620	2,479	8.6	15.5	19.1
Packaged Heating Units	54	262	114	4,820	15,239	5,684	11.3	17.2	20.1
Other	14	38	14	1,030	2,257	786	14.0	17.0	18.2
Cooling Equipment (more than one may apply)									
Residential-Type Central Air Conditioners	27	58	16	2,573	4,483	1,274	10.3	13.0	12.2
Heat Pumps	25	95	33	1,818	5,624	1,705	14.0	16.8	19.1
Individual Air Conditioners	54	81	25	6,113	6,687	1,476	8.8	12.1	16.8
District Chilled Water	14	29	13	794	1,550	407	17.1	18.4	32.8
Central Chillers	48	167	49	2,567	8,114	2,229	18.8	20.6	21.9
Packaged Air Conditioning Units	92	362	131	8,037	21,665	6,825	11.5	16.7	19.2
Swamp Coolers	5	19	Q	509	1,371	339	10.4	13.9	16.3
Other	Q	17	Q	Q	951	Q	Q	17.9	Q
Main Equipment Replaced Since 1995 (more than one may apply)									
Heating	41	129	13	4,160	8,266	794	9.9	15.6	15.8
Cooling	59	177	18	5,340	11,107	943	11.0	15.9	18.8
Lighting Equipment Types (more than one may apply)									
Incandescent	112	333	97	11,393	21,385	5,377	9.9	15.6	18.1
Standard Fluorescent	162	517	182	16,693	33,658	9,993	9.7	15.4	18.2
Compact Fluorescent	55	220	76	4,483	12,023	4,160	12.3	18.3	18.3
High Intensity Discharge	51	167	81	4,193	10,566	4,464	12.3	15.8	18.2
Halogen	48	179	66	3,653	10,699	3,574	13.2	16.7	18.4
Other	Q	7	9	Q	460	392	Q	15.7	22.6
Water Heating Equipment									
Centralized System	93	302	107	10,284	19,732	5,564	9.0	15.3	19.3
Distributed System	22	97	38	2,269	6,505	2,125	9.5	14.9	17.8
Combination of Centralized and Distributed System	36	103	37	2,376	5,503	1,758	15.3	18.7	20.8
Commercial Refrigeration Equipment (more than one may apply)									
Any Equipment	84	290	111	6,180	14,877	4,595	13.6	19.5	24.2
Walk-In Units	65	248	94	4,071	11,957	3,685	15.9	20.7	25.4
Cases or Cabinets	77	251	97	5,580	12,458	3,963	13.7	20.1	24.4
None	88	250	85	12,608	21,043	6,412	6.9	11.9	13.2
Personal Computers									
None	17	30	10	3,596	3,353	1,012	4.7	8.9	9.9
1 to 4	38	98	28	5,294	6,989	1,569	7.1	14.0	17.5
5 to 9	14	50	26	1,534	3,803	1,191	8.9	13.1	22.2
10 to 19	14	57	25	1,615	4,251	1,647	8.9	13.3	15.4
20 to 49	21	61	31	2,103	4,183	1,801	9.8	14.5	17.1
50 to 99	13	45	21	1,349	3,243	1,276	9.5	13.7	16.1
100 to 249	17	79	24	1,216	4,356	1,245	14.2	18.2	19.1
250 or More	38	122	32	2,079	5,741	1,267	18.3	21.2	25.0

Table C14. Electricity Consumption and Conditional Energy Intensity by Year Constructed, 1999

	Total Electricity Consumption (billion kWh)			Total Floorspace of Buildings Using Electricity (million square feet)			Electricity Energy Intensity (kWh/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Photocopiers									
None	47	125	45	7,460	9,945	2,604	6.3	12.6	17.3
One	32	93	44	3,928	6,643	2,358	8.2	14.0	18.6
2 to 4	34	119	47	4,033	8,666	2,921	8.4	13.7	16.0
5 to 9	8	55	21	620	3,390	1,373	13.0	16.1	14.9
10 or More	50	148	40	2,747	7,275	1,752	18.2	20.4	22.7
Other Electronic Equipment (more than one may apply)									
Laser Printers	125	426	167	11,145	26,657	8,765	11.2	16.0	19.1
FAX Machines	148	490	188	14,063	30,817	9,883	10.5	15.9	19.0
Medical Diagnostic Equipment	7	46	9	374	1,731	388	19.2	26.6	22.0
Annual Consumption (kilowatthours)									
10,000 or Less	2	1	Q	1,936	983	Q	1.0	1.4	Q
10,001 to 50,000	16	20	5	4,095	3,913	1,231	3.8	5.1	4.1
50,001 to 100,000	17	29	8	2,397	3,737	867	7.2	7.9	8.8
100,001 to 500,000	49	142	43	4,969	9,301	2,540	9.9	15.3	16.8
500,001 to 1,000,000	18	60	22	1,574	4,138	1,255	11.3	14.4	17.6
1,000,001 to 5,000,000	35	158	64	2,323	8,379	2,958	15.2	18.9	21.7
Over 5,000,000	34	130	54	1,494	5,469	1,860	22.9	23.8	29.2
Provider of Purchased Electricity (more than one may apply)									
Local Utility	157	510	176	17,640	34,242	10,161	8.9	14.9	17.3
Some Other Provider	12	27	12	880	1,620	601	13.8	16.7	19.6

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C15. Total Natural Gas Consumption and Expenditures, 1999

	All Buildings Using Natural Gas			Natural Gas Consumption		Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
All Buildings	2,670	45,525	17.1	2,023	1,966	10,609
Building Floorspace (Square Feet)						
1,001 to 5,000	1,193	3,566	3.0	312	304	1,802
5,001 to 10,000	684	5,088	7.4	292	284	1,810
10,001 to 25,000	448	7,001	15.6	319	310	1,813
25,001 to 50,000	176	6,405	36.4	234	227	1,274
50,001 to 100,000	103	7,165	69.4	250	243	1,253
100,001 to 200,000	42	5,915	139.2	230	223	1,104
200,001 to 500,000	18	5,282	299.7	237	230	958
Over 500,000	5	5,104	952.9	149	144	594
Principal Building Activity						
Education	225	6,570	29.3	227	220	1,111
Food Sales	88	659	7.5	31	31	195
Food Service	246	1,510	6.1	216	210	1,185
Health Care	73	2,285	31.4	217	211	881
Inpatient	9	1,677	176.6	195	190	757
Outpatient	63	609	9.6	22	21	124
Lodging	104	3,548	34.0	181	176	943
Mercantile	439	7,887	18.0	186	180	1,126
Retail (Other Than Mall)	350	3,518	10.1	110	107	670
Enclosed and Strip Malls	89	4,369	48.9	76	74	456
Office	452	7,356	16.3	219	213	1,215
Public Assembly	187	2,989	16.0	96	94	560
Public Order and Safety	31	627	20.2	33	32	176
Religious Worship	214	2,457	11.5	62	60	409
Service	277	2,093	7.6	260	253	1,371
Warehouse and Storage	226	6,211	27.5	230	223	1,124
Other	40	707	17.7	45	44	224
Vacant	68	626	9.2	19	19	89
Year Constructed						
1919 or Before	291	2,766	9.5	120	117	684
1920 to 1945	329	4,257	12.9	195	189	968
1946 to 1959	426	6,040	14.2	256	248	1,390
1960 to 1969	406	7,512	18.5	372	361	1,986
1970 to 1979	481	8,080	16.8	326	317	1,726
1980 to 1989	389	8,794	22.6	391	380	2,033
1990 to 1999	349	8,076	23.2	364	354	1,820
Census Region and Division						
Northeast	311	7,305	23.5	299	291	1,895
New England	45	1,590	35.3	59	57	403
Middle Atlantic	266	5,714	21.5	240	234	1,491
Midwest	874	13,506	15.5	709	689	3,277
East North Central	611	9,383	15.4	497	483	2,252
West North Central	263	4,123	15.7	212	206	1,024
South	820	14,199	17.3	618	601	3,294
South Atlantic	231	5,517	23.9	249	242	1,397
East South Central	224	3,508	15.7	186	180	999
West South Central	365	5,174	14.2	183	178	898
West	665	10,515	15.8	396	385	2,144
Mountain	230	3,183	13.8	145	140	739
Pacific	435	7,332	16.9	252	245	1,405

Table C15. Total Natural Gas Consumption and Expenditures, 1999

	All Buildings Using Natural Gas			Natural Gas Consumption		Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
Climate Zone: 45-Year Average						
Under 2,000 CDD and --						
More than 7,000 HDD	329	4,064	12.4	228	222	1,125
5,500-7,000 HDD	652	12,573	19.3	642	624	3,108
4,000-5,499 HDD	551	10,455	19.0	520	505	2,874
Fewer than 4,000 HDD	727	12,149	16.7	425	413	2,341
2,000 CDD or More and --						
Fewer than 4,000 HDD	410	6,285	15.3	208	202	1,160
Workers (main shift)						
Fewer than 5	1,151	7,108	6.2	280	272	1,747
5 to 9	560	4,633	8.3	194	189	1,111
10 to 19	424	5,589	13.2	281	273	1,509
20 to 49	321	7,737	24.1	435	423	2,386
50 to 99	118	6,278	53.3	222	215	1,177
100 to 249	67	6,146	91.1	252	244	1,210
250 or More	28	8,035	287.1	359	349	1,468
Weekly Operating Hours						
39 or Fewer	376	2,825	7.5	82	80	502
40 to 48	673	8,197	12.2	269	262	1,480
49 to 60	651	9,714	14.9	387	377	2,123
61 to 84	447	9,007	20.2	358	348	2,045
85 to 167	285	6,449	22.6	348	339	1,810
Open Continuously	238	9,334	39.2	577	561	2,650
Ownership and Occupancy						
Nongovernment Owned	2,366	37,026	15.6	1,659	1,613	8,913
Owner Occupied	1,605	25,597	16.0	1,202	1,168	6,383
Nonowner Occupied	719	10,968	15.3	447	435	2,474
Unoccupied	Q	Q	Q	Q	Q	Q
Government Owned	304	8,500	28.0	364	353	1,696
Federal	24	997	41.3	37	36	159
State	52	2,253	43.5	114	111	470
Local	228	5,250	23.0	212	206	1,067
Vacancy Status						
Completely Vacant	Q	Q	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q
Partially Vacant	370	10,725	29.0	306	297	1,600
Not At All Vacant	2,232	34,174	15.3	1,698	1,650	8,920
Number of Establishments						
One	2,038	29,717	14.6	1,542	1,498	7,939
2 to 5	459	7,439	16.2	273	266	1,524
6 to 10	79	2,463	31.0	86	84	511
11 to 20	23	1,786	76.7	50	48	275
More than 20	19	3,596	186.8	60	58	297
Currently Unoccupied	50	525	10.5	12	11	64
Energy Sources (more than one may apply)						
Electricity	2,663	45,496	17.1	2,023	1,966	10,607
Natural Gas	2,670	45,525	17.1	2,023	1,966	10,609
Fuel Oil	91	8,088	89.1	428	416	1,786
District Heat	Q	2,683	51.2	108	105	488
District Chilled Water	21	1,316	62.9	53	51	226
Propane	35	1,887	53.5	Q	Q	433
Other	59	1,572	26.6	75	72	381

Table C15. Total Natural Gas Consumption and Expenditures, 1999

	All Buildings Using Natural Gas			Natural Gas Consumption		Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
Space-Heating Energy Source						
Natural Gas	2,380	37,902	15.9	1,764	1,714	9,122
Natural Gas Main	2,189	32,729	15.0	1,602	1,557	8,225
Natural Gas Secondary	191	5,173	27.1	162	157	897
Other Excluding Natural Gas	208	6,492	31.2	190	184	1,067
Buildings without Heating	82	1,141	13.9	Q	Q	Q
Primary Space-Heating Energy Source						
Electricity	331	8,437	25.5	282	274	1,608
Natural Gas	2,189	32,729	15.0	1,602	1,557	8,225
Fuel Oil	Q	888	Q	17	16	108
District Heat	33	2,107	64.8	48	46	220
Propane	1	10	16.8	0	0	1
Other	Q	Q	Q	Q	Q	Q
Cooling Energy Source						
Natural Gas	142	1,914	13.5	102	99	518
Other Excluding Natural Gas	2,193	40,233	18.3	1,732	1,684	9,129
Buildings without Cooling	335	3,378	10.1	189	184	962
Water-Heating Energy Source						
Natural Gas	1,520	29,196	19.2	1,451	1,410	7,556
Other Excluding Natural Gas	671	12,170	18.1	413	402	2,149
Buildings without Water Heating	479	4,160	8.7	159	154	904
Cooking Energy Source						
Natural Gas	505	16,785	33.2	823	800	4,019
Other Excluding Natural Gas	110	3,072	28.0	118	114	653
Buildings without Cooking	2,055	25,668	12.5	1,082	1,052	5,937
Energy End Uses (more than one may apply)						
Buildings with Space Heating	2,588	44,385	17.2	1,954	1,899	10,189
Buildings with Cooling	2,335	42,147	18.1	1,834	1,782	9,647
Buildings with Water Heating	2,191	41,366	18.9	1,864	1,811	9,705
Buildings with Cooking	615	19,857	32.3	941	914	4,672
Buildings with Manufacturing	77	2,322	30.2	114	110	634
Buildings with Electricity Generation	118	9,119	77.5	470	457	2,080
Percent of Floorspace Heated						
Not Heated	82	1,141	13.9	Q	Q	Q
1 to 50	322	4,873	15.1	130	126	679
51 to 99	441	8,052	18.3	344	335	1,896
100	1,825	31,460	17.2	1,480	1,438	7,614
Percent of Floorspace Cooled						
Not Cooled	335	3,378	10.1	189	184	962
1 to 50	679	12,068	17.8	561	545	2,897
51 to 99	544	12,694	23.3	589	573	3,056
100	1,112	17,386	15.6	684	665	3,694
Heating Equipment (more than one may apply)						
Heat Pumps	194	5,627	29.1	292	284	1,481
Furnaces	1,104	11,960	10.8	566	550	3,054
Individual Space Heaters	581	13,561	23.3	530	515	2,712
District Heat	41	2,431	59.7	80	77	385
Boilers	416	16,588	39.8	841	817	3,974
Packaged Heating Units	939	20,043	21.3	826	803	4,291
Other	71	2,680	37.5	134	130	559

Table C15. Total Natural Gas Consumption and Expenditures, 1999

	All Buildings Using Natural Gas			Natural Gas Consumption		Natural Gas Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (billion cubic feet)	Total (million dollars)
Cooling Equipment (more than one may apply)						
Residential-Type Central Air Conditioners	503	6,805	13.5	295	287	1,538
Heat Pumps	195	5,771	29.6	291	283	1,477
Individual Air Conditioners	507	10,715	21.1	486	472	2,519
District Chilled Water	21	1,316	62.9	53	51	226
Central Chillers	103	10,145	98.8	522	508	2,301
Packaged Air Conditioning Units	1,356	27,987	20.6	1,193	1,159	6,277
Swamp Coolers	121	1,950	16.1	102	99	518
Other	20	773	Q	40	39	172
Main Equipment Replaced Since 1995 (more than one may apply)						
Heating	656	10,327	15.8	431	419	2,431
Cooling	689	12,862	18.7	557	542	2,949
Water Heating Equipment						
Centralized System	1,706	26,479	15.5	1,258	1,222	6,762
Distributed System	342	7,585	22.2	278	270	1,409
Combination of Centralized and Distributed System	143	7,302	51.2	328	319	1,533
Annual Consumption (hundred cubic feet)						
1,000 or Less	742	4,596	6.2	39	38	310
1,001 to 5,000	1,194	11,194	9.4	309	301	2,048
5,001 to 10,000	344	6,839	19.9	246	239	1,419
10,001 to 25,000	271	9,173	33.9	427	415	2,387
25,001 to 50,000	65	4,914	76.1	222	216	1,101
50,001 to 100,000	36	3,477	95.5	253	245	1,280
Over 100,000	17	5,333	314.3	526	511	2,064
Provider of Natural Gas (more than one may apply)						
Local Utility	2,508	40,765	16.3	1,730	1,681	9,251
Some Other Provider	125	4,266	34.2	287	279	1,288

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C16. Natural Gas Consumption and Expenditure Intensities, 1999

	Natural Gas Consumption						Natural Gas Expenditures		
				Distribution of Building-Level Intensities (cubic feet/square foot)					
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
All Buildings	736	43.2	34.9	15.7	34.1	75.4	4.0	0.23	5.40
Building Floorspace (Square Feet)									
1,001 to 5,000	254	85.1	44.2	19.8	50.2	101.5	1.5	0.51	5.94
5,001 to 10,000	415	55.9	39.7	14.4	31.7	57.1	2.6	0.36	6.37
10,001 to 25,000	691	44.2	42.1	11.6	25.8	44.4	4.0	0.26	5.85
25,001 to 50,000	1,293	35.5	34.6	12.4	25.0	43.8	7.2	0.20	5.60
50,001 to 100,000	2,356	33.9	26.3	9.5	20.7	41.1	12.1	0.17	5.15
100,001 to 200,000	5,251	37.7	38.2	7.8	22.0	43.5	26.0	0.19	4.95
200,001 to 500,000	13,068	43.6	35.3	5.2	16.7	45.5	54.4	0.18	4.16
Over 500,000	26,952	28.3	21.6	2.2	10.4	28.7	110.9	0.12	4.11
Principal Building Activity									
Education	981	33.5	31.8	11.2	25.0	49.0	4.9	0.17	5.04
Food Sales	346	46.4	45.6	9.2	71.2	92.4	2.2	0.30	6.36
Food Service	854	139.1	65.4	76.7	141.1	258.5	4.8	0.78	5.64
Health Care	2,898	92.2	49.4	14.4	22.5	57.2	12.1	0.39	4.18
Inpatient	19,993	113.2	63.2	97.7	163.0	163.0	79.8	0.45	3.99
Outpatient	Q	34.5	16.6	13.8	19.2	47.0	Q	0.20	5.88
Lodging	1,688	49.6	95.9	31.6	55.8	94.9	9.0	0.27	5.35
Mercantile	411	22.9	20.6	12.4	29.8	55.6	2.6	0.14	6.24
Retail (Other Than Mall)	305	30.3	30.9	12.4	34.1	56.7	1.9	0.19	6.28
Enclosed and Strip Malls	826	16.9	13.9	12.6	24.7	45.6	5.1	0.10	6.18
Office	472	29.0	11.7	14.4	28.5	50.2	2.7	0.17	5.70
Public Assembly	501	31.3	45.8	8.3	21.5	48.9	3.0	0.19	5.99
Public Order and Safety	1,020	50.5	40.8	29.2	48.8	77.4	5.7	0.28	5.57
Religious Worship	280	24.4	47.3	14.1	24.8	34.0	1.9	0.17	6.82
Service	914	121.0	79.8	33.5	55.5	130.8	4.9	0.66	5.42
Warehouse and Storage	989	36.0	54.5	10.3	26.5	62.6	5.0	0.18	5.03
Other	1,097	62.0	56.2	29.5	32.5	37.4	5.6	0.32	5.12
Vacant	275	29.9	Q	7.1	12.1	34.3	1.3	0.14	4.75
Year Constructed									
1919 or Before	403	42.3	Q	15.8	35.4	79.1	2.4	0.25	5.84
1920 to 1945	574	44.4	38.8	23.9	44.1	81.5	2.9	0.23	5.12
1946 to 1959	584	41.1	37.3	12.9	33.6	72.0	3.3	0.23	5.60
1960 to 1969	890	48.1	39.0	19.7	41.0	83.2	4.9	0.26	5.50
1970 to 1979	659	39.2	29.7	14.4	34.1	60.0	3.6	0.21	5.45
1980 to 1989	977	43.2	30.6	13.7	25.1	55.0	5.2	0.23	5.35
1990 to 1999	1,014	43.8	36.5	14.1	32.5	81.8	5.2	0.23	5.15
Census Region and Division									
Northeast	933	39.8	32.1	20.1	48.9	91.4	6.1	0.26	6.52
New England	1,262	35.8	29.4	16.3	42.7	60.8	9.0	0.25	7.09
Middle Atlantic	878	40.9	32.8	20.8	49.4	92.4	5.6	0.26	6.38
Midwest	789	51.0	45.8	20.3	44.6	81.1	3.7	0.24	4.75
East North Central	791	51.5	48.5	20.5	47.0	81.5	3.7	0.24	4.66
West North Central	782	49.9	40.5	19.7	41.9	80.9	3.9	0.25	4.97
South	733	42.3	32.8	13.7	26.5	64.6	4.0	0.23	5.48
South Atlantic	1,050	43.9	34.9	14.2	30.3	86.2	6.1	0.25	5.76
East South Central	806	51.4	41.2	15.1	32.4	65.4	4.5	0.28	5.54
West South Central	488	34.5	25.5	12.0	20.8	45.9	2.5	0.17	5.04
West	579	36.6	27.8	11.3	28.5	60.6	3.2	0.20	5.56
Mountain	609	44.1	42.6	18.8	34.8	71.1	3.2	0.23	5.26
Pacific	563	33.4	23.2	9.9	24.7	56.0	3.2	0.19	5.74

Table C16. Natural Gas Consumption and Expenditure Intensities, 1999

	Natural Gas Consumption						Natural Gas Expenditures		
				Distribution of Building-Level Intensities (cubic feet/square foot)					
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
Climate Zone: 45-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	674	54.6	52.6	30.3	54.6	89.8	3.4	0.28	5.08
5,500-7,000 HDD	957	49.6	45.0	22.3	44.6	78.3	4.8	0.25	4.98
4,000-5,499 HDD	916	48.3	36.4	19.7	37.9	89.4	5.2	0.27	5.69
Fewer than 4,000 HDD	568	34.0	25.1	10.7	24.0	45.1	3.2	0.19	5.67
2,000 CDD or More and --									
Fewer than 4,000 HDD	493	32.2	25.7	10.8	19.8	65.4	2.8	0.18	5.73
Workers (main shift)									
Fewer than 5	236	38.3	107.6	13.8	33.3	71.2	1.5	0.25	6.42
5 to 9	338	40.8	51.5	15.4	35.1	76.5	2.0	0.24	5.88
10 to 19	645	48.9	50.4	18.5	35.2	77.4	3.6	0.27	5.52
20 to 49	1,316	54.7	45.9	18.1	40.9	88.4	7.4	0.31	5.64
50 to 99	1,828	34.3	28.1	15.6	29.1	48.8	10.0	0.19	5.47
100 to 249	3,625	39.8	26.7	14.8	24.4	64.5	17.9	0.20	4.95
250 or More	12,461	43.4	18.7	8.7	21.0	51.9	52.5	0.18	4.21
Weekly Operating Hours									
39 or Fewer	212	28.3	41.1	11.2	20.1	38.2	1.3	0.18	6.28
40 to 48	389	31.9	26.9	12.8	28.5	55.7	2.2	0.18	5.65
49 to 60	579	38.8	27.8	18.0	33.5	62.6	3.3	0.22	5.64
61 to 84	779	38.6	30.3	16.6	35.8	86.2	4.6	0.23	5.88
85 to 167	1,187	52.5	42.6	31.8	68.2	243.9	6.3	0.28	5.35
Open Continuously	2,358	60.1	48.4	30.4	61.0	92.9	11.1	0.28	4.72
Ownership and Occupancy									
Nongovernment Owned	682	43.6	34.6	16.5	34.1	76.5	3.8	0.24	5.53
Owner Occupied	728	45.6	35.6	17.0	36.5	77.5	4.0	0.25	5.46
Nonowner Occupied	605	39.6	31.6	16.4	32.6	68.2	3.4	0.23	5.69
Unoccupied	Q	Q	N	11.5	12.0	17.2	Q	Q	Q
Government Owned	1,163	41.6	36.5	11.3	32.7	71.1	5.6	0.20	4.80
Federal	Q	36.4	22.6	2.8	8.3	23.9	Q	0.16	4.37
State	2,143	49.2	46.7	16.7	35.4	89.4	9.1	0.21	4.24
Local	905	39.3	36.1	13.0	34.8	71.1	4.7	0.20	5.18
Vacancy Status									
Completely Vacant	Q	Q	N	2.0	11.5	17.2	Q	Q	Q
Mostly Vacant	Q	Q	Q	7.1	23.3	71.1	Q	Q	Q
Partially Vacant	804	27.7	20.8	9.9	21.1	46.8	4.3	0.15	5.38
Not At All Vacant	739	48.3	39.5	17.8	36.8	79.3	4.0	0.26	5.41
Number of Establishments									
One	735	50.4	43.8	16.6	36.1	77.4	3.9	0.27	5.30
2 to 5	579	35.7	32.1	13.7	31.3	67.3	3.3	0.20	5.73
6 to 10	1,057	34.0	18.0	14.2	33.6	86.2	6.4	0.21	6.09
11 to 20	2,079	27.1	15.4	10.6	20.6	32.3	11.8	0.15	5.68
More than 20	3,015	16.1	9.7	7.5	27.3	123.9	15.4	0.08	5.11
Currently Unoccupied	226	21.6	N	11.5	15.5	25.8	1.3	0.12	5.65
Energy Sources (more than one may apply)									
Electricity	738	43.2	34.9	15.8	34.1	75.4	4.0	0.23	5.40
Natural Gas	736	43.2	34.9	15.7	34.1	75.4	4.0	0.23	5.40
Fuel Oil	4,584	51.5	34.3	10.7	23.2	61.3	19.7	0.22	4.29
District Heat	Q	39.1	25.0	4.9	16.7	89.4	9.3	0.18	Q
District Chilled Water	2,447	38.9	26.9	8.3	15.2	42.0	10.8	0.17	4.40
Propane	Q	Q	62.5	13.3	36.3	78.3	Q	0.23	4.13
Other	1,226	46.1	Q	34.0	57.0	64.9	6.4	0.24	5.25

Table C16. Natural Gas Consumption and Expenditure Intensities, 1999

	Natural Gas Consumption						Natural Gas Expenditures		
				Distribution of Building-Level Intensities (cubic feet/square foot)					
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
Space-Heating Energy Source									
Natural Gas	720	45.2	37.3	16.5	34.0	72.0	3.8	0.24	5.32
Natural Gas Main	711	47.6	39.8	16.8	34.2	75.4	3.8	0.25	5.28
Natural Gas Secondary	823	30.4	23.0	9.4	24.7	53.2	4.7	0.17	5.70
Other Excluding Natural Gas	885	28.4	21.9	9.7	40.7	115.9	5.1	0.16	5.78
Buildings without Heating	Q	Q	Q	6.1	16.9	160.3	Q	Q	6.25
Primary Space-Heating Energy Source									
Electricity	827	32.5	25.5	11.7	39.0	86.2	4.9	0.19	5.86
Natural Gas	711	47.6	39.8	16.8	34.2	75.4	3.8	0.25	5.28
Fuel Oil	Q	18.5	13.2	4.2	17.8	17.8	Q	0.12	6.59
District Heat	1,422	21.9	14.9	1.5	8.3	56.9	6.8	0.10	4.75
Propane	312	18.6	17.4	4.1	4.1	4.1	2.2	0.13	6.95
Other	Q	Q	Q	12.9	44.1	44.1	Q	Q	Q
Cooling Energy Source									
Natural Gas	696	51.6	34.7	15.2	34.0	81.1	3.7	0.27	5.25
Other Excluding Natural Gas	768	41.8	32.7	16.0	33.6	71.5	4.2	0.23	5.42
Buildings without Cooling	548	54.4	93.3	11.5	36.8	80.9	2.9	0.28	5.24
Water-Heating Energy Source									
Natural Gas	927	48.3	39.2	16.8	38.0	81.8	5.0	0.26	5.36
Other Excluding Natural Gas	599	33.0	24.7	15.6	32.6	60.8	3.2	0.18	5.35
Buildings without Water Heating	323	37.1	38.1	13.1	26.7	69.2	1.9	0.22	5.85
Cooking Energy Source									
Natural Gas	1,584	47.7	37.5	26.2	66.5	161.8	8.0	0.24	5.02
Other Excluding Natural Gas	1,043	37.2	31.3	18.8	43.0	91.6	6.0	0.21	5.71
Buildings without Cooking	512	41.0	33.6	14.1	29.8	60.6	2.9	0.23	5.65
Energy End Uses (more than one may apply)									
Buildings with Space Heating	734	42.8	34.9	16.0	34.2	75.4	3.9	0.23	5.37
Buildings with Cooling	763	42.3	32.8	15.9	33.6	72.0	4.1	0.23	5.41
Buildings with Water Heating	827	43.8	34.7	16.0	35.1	76.7	4.4	0.23	5.36
Buildings with Cooking	1,488	46.0	36.6	25.5	64.2	128.1	7.6	0.24	5.11
Buildings with Manufacturing	1,434	47.5	35.5	18.0	30.1	58.3	8.2	0.27	5.74
Buildings with Electricity Generation	3,885	50.1	33.5	25.5	57.0	95.7	17.7	0.23	4.55
Percent of Floorspace Heated									
Not Heated	Q	Q	Q	6.1	16.9	160.3	Q	Q	6.25
1 to 50	391	25.9	41.2	9.3	17.3	47.0	2.1	0.14	5.39
51 to 99	759	41.6	35.8	16.0	35.3	81.8	4.3	0.24	5.66
100	788	45.7	34.2	18.3	37.2	77.5	4.2	0.24	5.30
Percent of Floorspace Cooled									
Not Cooled	548	54.4	93.3	11.5	36.8	80.9	2.9	0.28	5.24
1 to 50	802	45.2	54.2	13.8	36.1	70.5	4.3	0.24	5.32
51 to 99	1,052	45.1	33.3	16.9	35.8	89.8	5.6	0.24	5.34
100	598	38.2	24.6	15.8	32.5	67.0	3.3	0.21	5.56

Table C16. Natural Gas Consumption and Expenditure Intensities, 1999

	Natural Gas Consumption						Natural Gas Expenditures		
				Distribution of Building-Level Intensities (cubic feet/square foot)					
	per Building (thousand cubic feet)	per Square Foot (cubic feet)	per Worker (thousand cubic feet)	25th Percentile	Median	75th Percentile	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Cubic Feet (dollars)
Heating Equipment (more than one may apply)									
Heat Pumps	1,467	50.5	41.1	11.5	27.7	84.4	7.6	0.26	5.21
Furnaces	499	46.0	42.1	16.8	32.4	66.5	2.8	0.26	5.55
Individual Space Heaters	886	38.0	37.9	14.8	30.4	63.5	4.7	0.20	5.27
District Heat	1,897	31.8	19.4	3.2	16.3	114.5	9.4	0.16	4.98
Boilers	1,963	49.3	38.7	24.7	45.7	84.1	9.5	0.24	4.86
Packaged Heating Units	854	40.1	32.8	14.4	32.1	68.2	4.6	0.21	5.35
Other	Q	48.4	34.5	12.9	28.5	71.1	7.8	0.21	4.31
Cooling Equipment (more than one may apply)									
Residential-Type Central Air Conditioners	570	42.1	36.8	17.4	29.8	63.1	3.1	0.23	5.37
Heat Pumps	1,451	49.1	37.7	15.1	27.7	64.2	7.6	0.26	5.22
Individual Air Conditioners	932	44.1	39.2	17.8	41.0	84.1	5.0	0.24	5.33
District Chilled Water	2,447	38.9	26.9	8.3	15.2	42.0	10.8	0.17	4.40
Central Chillers	4,942	50.0	30.7	21.5	42.9	86.2	22.4	0.23	4.53
Packaged Air Conditioning Units	855	41.4	32.1	14.4	35.8	72.0	4.6	0.22	5.41
Swamp Coolers	817	50.8	47.8	18.5	32.9	111.3	4.3	0.27	5.23
Other	Q	50.4	38.4	25.0	31.7	34.0	Q	0.22	4.42
Main Equipment Replaced Since 1995 (more than one may apply)									
Heating	639	40.6	32.7	18.3	37.6	77.5	3.7	0.24	5.80
Cooling	786	42.1	31.4	15.9	39.3	84.1	4.3	0.23	5.45
Water Heating Equipment									
Centralized System	716	46.2	37.6	16.9	36.6	81.8	4.0	0.26	5.53
Distributed System	791	35.6	29.0	10.3	22.1	49.6	4.1	0.19	5.21
Combination of Centralized and Distributed System	2,236	43.6	30.7	20.5	42.5	76.7	10.8	0.21	4.81
Annual Consumption (hundred cubic feet)									
1,000 or Less	52	8.3	7.9	6.5	11.5	21.8	0.4	0.07	8.11
1,001 to 5,000	252	26.8	21.7	23.2	42.2	72.0	1.7	0.18	6.81
5,001 to 10,000	696	35.0	26.5	29.3	56.4	147.8	4.1	0.21	5.93
10,001 to 25,000	1,533	45.3	37.6	37.3	85.6	247.8	8.8	0.26	5.75
25,001 to 50,000	3,347	44.0	35.5	37.9	67.1	144.0	17.1	0.22	5.09
50,001 to 100,000	6,742	70.6	61.5	56.8	115.0	577.2	35.2	0.37	5.21
Over 100,000	30,101	95.8	68.5	60.5	102.5	171.1	121.6	0.39	4.04
Provider of Natural Gas (more than one may apply)									
Local Utility	670	41.2	33.7	14.8	33.1	73.1	3.7	0.23	5.50
Some Other Provider	2,237	65.4	48.5	30.4	46.5	86.2	10.3	0.30	4.62

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Natural Gas Consumption (billion cubic feet)				Total Floorspace of Buildings Using Natural Gas (million square feet)				Natural Gas Energy Intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings	291	689	601	385	7,305	13,506	14,199	10,515	39.8	51.0	42.3	36.6
Building Floorspace (Square Feet)												
1,001 to 5,000	Q	115	91	68	Q	1,210	951	991	Q	94.8	95.7	68.9
5,001 to 10,000	Q	79	Q	57	564	1,676	1,674	1,175	80.3	47.1	Q	48.5
10,001 to 25,000	53	96	Q	39	918	2,218	2,338	1,526	58.0	43.2	Q	25.5
25,001 to 50,000	29	63	71	64	927	1,480	2,054	1,944	31.4	42.7	34.4	33.1
50,001 to 100,000	31	80	68	65	979	2,077	2,343	1,767	31.2	38.3	29.2	36.6
100,001 to 200,000	32	100	60	31	938	1,866	1,902	1,209	33.8	53.7	31.8	25.5
200,001 to 500,000	29	111	52	38	911	1,776	1,628	967	32.3	62.3	32.1	39.3
Over 500,000	42	46	33	23	1,653	1,203	1,310	937	25.1	38.2	25.6	24.9
Principal Building Activity												
Education	42	83	45	50	1,223	1,863	1,757	1,726	34.7	44.5	25.3	29.2
Food Sales	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food Service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Health Care	44	55	67	46	352	668	760	505	124.6	82.1	87.5	90.2
Inpatient	43	47	62	Q	330	488	567	Q	131.5	95.5	108.7	Q
Outpatient	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Lodging	18	43	67	49	306	758	1,258	1,225	57.4	56.2	53.5	39.8
Mercantile	35	78	43	24	1,322	2,471	2,686	1,408	26.7	31.5	16.0	17.4
Retail (Other Than Mall)	24	51	23	Q	602	1,507	995	Q	39.9	33.9	23.5	Q
Enclosed and Strip Malls	Q	27	20	16	Q	964	1,692	993	Q	27.6	11.6	16.4
Office	28	77	57	52	1,210	2,136	2,188	1,821	22.7	35.9	26.0	28.6
Public Assembly	14	29	24	Q	504	899	991	595	27.1	32.0	23.7	46.5
Public Order and Safety	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious Worship	Q	22	12	16	Q	659	677	839	Q	32.8	17.5	19.7
Service	Q	64	145	Q	Q	753	738	297	Q	85.3	196.4	44.8
Warehouse and Storage	28	136	41	Q	1,166	2,001	1,948	1,096	23.6	68.0	21.3	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year Constructed												
1919 or Before	28	64	8	18	674	1,260	413	419	40.8	51.0	18.5	41.9
1920 to 1945	29	95	39	26	911	1,837	944	566	32.0	51.6	41.7	45.7
1946 to 1959	76	86	47	40	1,274	1,779	1,676	1,310	59.5	48.2	28.3	30.2
1960 to 1969	48	110	116	87	1,140	2,144	2,300	1,928	42.4	51.4	50.5	44.9
1970 to 1979	32	87	107	91	960	1,881	2,600	2,639	33.0	46.4	41.1	34.5
1980 to 1989	46	111	177	45	1,288	2,236	3,481	1,789	35.7	49.8	50.9	25.4
1990 to 1999	32	136	106	79	1,056	2,369	2,785	1,865	30.2	57.3	38.2	42.6
Climate Zone: 45-Year Average												
Under 2,000 CDD and --												
More than 7,000 HDD	Q	192	N	29	Q	3,579	N	458	Q	53.7	N	62.4
5,500-7,000 HDD	142	399	N	83	3,467	7,330	N	1,776	41.0	54.4	N	46.7
4,000-5,499 HDD	147	98	205	54	3,812	2,597	2,804	1,242	38.7	37.9	73.1	43.8
Fewer than 4,000 HDD	N	N	240	173	N	N	6,222	5,927	N	N	38.5	29.2
2,000 CDD or More and --												
Fewer than 4,000 HDD	N	N	156	46	N	N	5,173	1,112	N	N	30.2	41.6
Workers (main shift)												
Fewer than 5	30	107	79	57	614	2,576	2,180	1,738	48.2	41.4	36.3	32.7
5 to 9	19	80	35	55	701	1,542	1,083	1,307	27.0	51.9	32.5	42.0
10 to 19	46	96	90	41	950	1,766	1,726	1,147	48.6	54.3	52.4	35.6
20 to 49	53	103	193	74	885	2,110	2,883	1,858	59.6	48.6	67.0	39.9
50 to 99	45	70	59	41	1,062	1,671	1,990	1,555	42.2	42.1	29.6	26.5
100 to 249	38	94	63	50	1,102	1,854	2,009	1,182	34.7	50.5	31.3	42.1
250 or More	60	140	81	67	1,990	1,988	2,328	1,728	30.1	70.5	34.9	39.0

Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Natural Gas Consumption (billion cubic feet)				Total Floorspace of Buildings Using Natural Gas (million square feet)				Natural Gas Energy Intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Weekly Operating Hours												
39 or Fewer	Q	30	21	16	Q	789	971	792	Q	38.1	21.9	20.6
40 to 48	38	92	70	62	934	2,460	2,837	1,966	41.2	37.4	24.5	31.4
49 to 60	37	131	133	75	1,394	3,146	2,771	2,403	26.9	41.7	Q	31.1
61 to 84	76	113	Q	55	1,805	2,622	2,656	1,924	42.1	43.0	Q	28.7
85 to 167	37	134	111	57	1,146	2,160	1,910	1,232	31.9	61.9	58.3	46.1
Open Continuously	90	189	161	120	1,754	2,329	3,054	2,198	51.2	81.3	52.9	54.8
Ownership and Occupancy												
Nongovernment Owned	242	571	494	305	5,622	11,152	11,727	8,525	43.1	51.2	42.2	35.7
Owner Occupied	193	396	369	211	4,056	7,868	7,959	5,714	47.5	50.4	46.3	36.9
Nonowner Occupied	49	172	120	94	1,537	3,200	3,501	2,730	32.1	53.7	34.3	34.3
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	48	118	107	81	1,683	2,354	2,473	1,990	28.7	50.1	43.1	40.5
Federal	Q	Q	9	11	Q	Q	275	239	Q	Q	34.3	45.5
State	Q	34	Q	21	Q	678	693	545	Q	50.5	Q	37.8
Local	36	71	50	49	1,093	1,447	1,504	1,206	33.0	49.3	33.0	40.7
Vacancy Status												
Completely Vacant	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	19.7	Q
Partially Vacant	39	123	80	55	1,798	3,253	3,333	2,341	21.8	37.9	23.9	23.6
Not At All Vacant	250	554	519	327	5,407	10,007	10,754	8,006	46.3	55.3	48.2	40.8
Number of Establishments												
One	210	518	480	291	4,482	9,194	9,096	6,945	46.8	56.4	52.8	41.8
2 to 5	43	115	58	50	1,237	2,533	2,008	1,661	35.1	45.3	28.7	30.1
6 to 10	Q	14	31	19	Q	470	897	726	Q	30.8	35.1	26.7
11 to 20	Q	19	13	8	Q	444	642	363	Q	43.8	20.2	23.1
More than 20	11	19	13	15	850	743	1,283	720	Q	25.6	10.3	21.0
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than one may apply)												
Electricity	291	689	601	385	7,305	13,506	14,199	10,486	39.8	51.0	42.3	36.7
Natural Gas	291	689	601	385	7,305	13,506	14,199	10,515	39.8	51.0	42.3	36.6
Fuel Oil	78	165	111	61	2,569	1,945	2,269	1,306	30.5	85.1	49.0	46.8
District Heat	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
District Chilled Water	Q	9	18	Q	Q	290	518	Q	Q	30.2	34.9	Q
Propane	Q	Q	17	Q	Q	628	701	Q	Q	Q	Q	Q
Other	Q	29	Q	Q	Q	507	Q	Q	Q	56.7	Q	Q
Space-Heating Energy Source												
Natural Gas	268	663	444	339	5,703	12,467	10,904	8,828	47.0	53.2	40.7	38.4
Natural Gas Main	239	624	394	300	4,913	11,348	8,815	7,653	48.7	55.0	44.7	39.2
Natural Gas Secondary	29	39	50	39	790	1,118	2,089	1,175	36.6	35.2	23.8	33.4
Other Excluding Natural Gas	19	21	110	34	1,545	986	2,616	1,345	12.5	21.4	42.0	25.4
Buildings without Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Primary Space-Heating Energy Source												
Electricity	27	50	135	62	693	1,497	4,037	2,210	38.4	33.6	33.5	28.0
Natural Gas	239	624	394	300	4,913	11,348	8,815	7,653	48.7	55.0	44.7	39.2
Fuel Oil	13	Q	Q	Q	664	Q	Q	Q	19.5	Q	Q	Q
District Heat	8	Q	22	Q	884	507	468	Q	Q	13.2	46.2	Q
Propane	0	0	N	N	6	5	N	N	30.4	4.1	N	N
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	12.9	Q

Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Natural Gas Consumption (billion cubic feet)				Total Floorspace of Buildings Using Natural Gas (million square feet)				Natural Gas Energy Intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Cooling Energy Source												
Natural Gas	31	38	Q	20	446	550	Q	652	69.1	69.0	Q	30.5
Other Excluding Natural Gas	241	590	526	326	6,275	11,750	13,532	8,676	38.5	50.2	38.9	37.6
Buildings without Cooling	18	62	Q	39	583	1,206	402	1,187	31.5	51.0	Q	32.8
Water-Heating Energy Source												
Natural Gas	197	444	447	321	4,074	8,323	8,943	7,856	48.4	53.4	50.0	40.9
Other Excluding Natural Gas	81	153	121	46	2,827	3,350	3,973	2,020	28.8	45.7	30.4	23.0
Buildings without Water Heating	12	92	33	18	404	1,833	1,283	640	29.8	50.1	25.6	27.8
Cooking Energy Source												
Natural Gas	132	255	242	172	3,380	4,445	5,345	3,614	39.0	57.3	45.3	47.5
Other Excluding Natural Gas	25	40	35	14	537	913	1,213	409	46.5	44.2	28.9	33.9
Buildings without Cooking	134	394	324	200	3,388	8,148	7,641	6,492	39.5	48.4	42.4	30.8
Energy End Uses (more than one may apply)												
Buildings with Space Heating	287	684	554	374	7,248	13,452	13,511	10,173	39.6	50.9	41.0	36.7
Buildings with Cooling	272	628	536	346	6,721	12,300	13,798	9,328	40.5	51.0	38.9	37.1
Buildings with Water Heating	278	597	568	367	6,901	11,673	12,916	9,875	40.4	51.2	44.0	37.2
Buildings with Cooking	157	295	277	186	3,917	5,358	6,558	4,024	40.0	55.0	42.2	46.1
Buildings with Manufacturing	Q	Q	30	13	Q	777	675	458	Q	69.3	44.0	29.4
Buildings with Electricity Generation	76	172	123	86	2,132	2,355	2,997	1,635	35.5	73.1	41.1	52.6
Percent of Floorspace Heated												
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	Q	32	Q	35	Q	1,305	1,373	1,638	Q	24.7	Q	21.4
51 to 99	29	70	Q	61	1,086	2,123	2,960	1,884	27.0	32.8	Q	32.6
100	245	582	333	277	5,606	10,024	9,178	6,652	43.7	58.1	36.3	41.7
Percent of Floorspace Cooled												
Not Cooled	18	62	Q	39	583	1,206	402	1,187	31.5	51.0	Q	32.8
1 to 50	99	258	Q	62	2,476	4,570	2,640	2,382	40.1	56.5	Q	26.1
51 to 99	99	193	166	115	2,161	4,147	3,889	2,496	45.6	46.5	42.6	46.2
100	74	176	245	169	2,084	3,583	7,269	4,449	35.6	49.2	33.7	38.0
Heating Equipment (more than one may apply)												
Heat Pumps	28	39	173	44	928	691	2,732	1,276	30.6	57.0	63.2	34.2
Furnaces	68	285	Q	69	1,480	5,153	3,101	2,226	46.0	55.3	41.5	31.0
Individual Space Heaters	91	200	124	99	2,550	4,207	3,847	2,956	35.6	47.6	32.3	33.6
District Heat	26	11	27	12	998	579	560	295	26.4	19.9	48.7	41.4
Boilers	137	329	171	181	3,552	5,701	3,641	3,694	38.5	57.6	47.0	49.0
Packaged Heating Units	101	266	266	171	3,039	4,717	7,108	5,179	33.1	56.4	37.4	33.0
Other	Q	Q	13	Q	Q	953	786	501	Q	Q	16.9	45.4
Cooling Equipment (more than one may apply)												
Residential-Type Central Air Conditioners	35	125	91	Q	800	2,626	2,376	1,004	44.3	47.5	38.3	35.4
Heat Pumps	26	38	174	45	962	742	2,753	1,313	26.9	51.4	63.1	34.6
Individual Air Conditioners	105	187	117	63	2,608	3,352	3,152	1,603	40.3	55.8	37.1	39.6
District Chilled Water	Q	9	18	Q	Q	290	518	Q	Q	30.2	34.9	Q
Central Chillers	71	175	139	122	1,967	2,621	3,338	2,220	36.1	67.0	41.7	54.9
Packaged Air Conditioning Units	198	435	316	210	4,777	7,564	9,287	6,359	41.5	57.5	34.0	33.0
Swamp Coolers	Q	Q	Q	65	Q	Q	Q	1,413	Q	Q	Q	45.9
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

Table C17. Natural Gas Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Natural Gas Consumption (billion cubic feet)				Total Floorspace of Buildings Using Natural Gas (million square feet)				Natural Gas Energy Intensity (cubic feet/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Main Equipment Replaced Since 1995 (more than one may apply)												
Heating	60	140	125	94	1,233	3,072	3,477	2,545	48.5	45.6	35.9	37.0
Cooling	80	188	173	101	1,979	3,505	4,651	2,728	40.3	53.6	37.2	37.1
Water Heating Equipment												
Centralized System	207	362	400	253	4,691	7,688	7,742	6,357	44.2	47.1	51.6	39.8
Distributed System	23	119	74	55	1,055	1,977	2,740	1,812	21.4	60.0	26.9	30.6
Combination of Centralized and Distributed System	48	116	95	59	1,154	2,007	2,435	1,706	41.9	58.0	38.9	34.7
Annual Consumption (hundred cubic feet)												
1,000 or Less	2	10	16	10	392	946	1,867	1,392	4.5	10.5	8.7	7.4
1,001 to 5,000	40	108	78	74	1,413	3,280	3,635	2,865	28.5	32.9	21.5	25.8
5,001 to 10,000	33	90	69	47	1,091	1,807	2,411	1,530	30.4	49.9	28.6	30.9
10,001 to 25,000	87	132	104	92	1,694	2,799	2,510	2,169	51.1	47.2	41.5	42.6
25,001 to 50,000	26	69	77	44	834	1,569	1,510	1,001	30.8	44.2	50.9	44.2
50,001 to 100,000	26	73	Q	32	779	1,308	842	547	33.7	56.0	134.7	59.3
Over 100,000	77	206	143	85	1,101	1,796	1,425	1,011	69.7	114.9	100.4	83.6
Provider of Natural Gas (more than one may apply)												
Local Utility	223	593	529	337	6,102	11,915	13,151	9,597	36.5	49.7	40.2	35.1
Some Other Provider	64	93	71	Q	954	1,534	917	861	67.3	60.5	77.5	59.1

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C18. Natural Gas Expenditures by Census Region, 1999

	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars) per Thousand Cubic Feet				Natural Gas Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings	1,895	3,277	3,294	2,144	6.52	4.75	5.48	5.56	0.26	0.24	0.23	0.20
Building Floorspace (Square Feet)												
1,001 to 5,000	Q	643	507	416	Q	5.61	5.57	6.09	Q	0.53	0.53	0.42
5,001 to 10,000	320	461	Q	374	7.07	5.84	6.36	6.57	0.57	0.28	0.39	0.32
10,001 to 25,000	380	482	Q	232	7.13	5.03	5.92	5.96	0.41	0.22	Q	0.15
25,001 to 50,000	215	318	373	368	7.38	5.04	5.27	5.72	0.23	0.22	0.18	0.19
50,001 to 100,000	211	364	335	343	6.91	4.58	4.89	5.30	0.22	0.18	0.14	0.19
100,001 to 200,000	189	451	316	149	5.95	4.50	5.23	4.85	0.20	0.24	0.17	0.12
200,001 to 500,000	157	376	256	169	5.34	3.40	4.90	4.45	0.17	0.21	0.16	0.17
Over 500,000	187	181	133	92	4.51	3.93	3.98	3.97	0.11	0.15	0.10	0.10
Principal Building Activity												
Education	262	307	255	286	6.19	3.71	5.72	5.68	0.21	0.17	0.15	0.17
Food Sales	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Food Service	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Health Care	192	211	286	192	4.39	3.84	4.29	4.23	0.55	0.32	0.38	0.38
Inpatient	188	164	257	Q	4.33	3.51	4.17	Q	0.57	0.34	0.45	Q
Outpatient	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Lodging	107	196	368	272	6.06	4.60	5.47	5.59	0.35	0.26	0.29	0.22
Mercantile	265	416	292	153	7.51	5.36	6.79	6.27	0.20	0.17	0.11	0.11
Retail (Other Than Mall)	185	272	162	Q	7.72	5.32	6.91	Q	0.31	0.18	0.16	Q
Enclosed and Strip Malls	Q	144	130	102	Q	5.42	6.64	6.27	Q	0.15	0.08	0.10
Office	215	397	312	290	7.83	5.19	5.48	5.57	0.18	0.19	0.14	0.16
Public Assembly	110	158	140	Q	8.04	5.49	5.94	5.53	0.22	0.18	0.14	0.26
Public Order and Safety	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious Worship	Q	124	Q	107	Q	5.72	8.59	6.50	Q	0.19	0.15	0.13
Service	Q	343	Q	72	Q	5.34	5.28	5.42	Q	0.46	1.04	0.24
Warehouse and Storage	187	594	245	Q	6.78	4.36	5.90	5.43	0.16	0.30	0.13	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year Constructed												
1919 or Before	202	328	55	98	7.32	5.11	7.23	5.61	0.30	0.26	0.13	0.24
1920 to 1945	166	430	220	153	5.70	4.53	5.59	5.90	0.18	0.23	0.23	0.27
1946 to 1959	459	417	281	234	6.05	4.86	5.93	5.91	0.36	0.23	0.17	0.18
1960 to 1969	336	542	Q	483	6.95	4.92	5.39	5.58	0.29	0.25	Q	0.25
1970 to 1979	201	424	576	525	6.35	4.86	5.40	5.77	0.21	0.23	0.22	0.20
1980 to 1989	324	536	926	247	7.06	4.82	5.23	5.44	0.25	0.24	0.27	0.14
1990 to 1999	206	600	610	404	6.45	4.42	5.73	5.09	0.20	0.25	0.22	0.22
Climate Zone: 45-Year Average												
Under 2,000 CDD and --												
More than 7,000 HDD	Q	976	N	140	Q	5.08	N	4.91	Q	0.27	N	0.31
5,500-7,000 HDD	960	1,777	N	370	6.76	4.46	N	4.46	0.28	0.24	N	0.21
4,000-5,499 HDD	925	523	1,127	298	6.28	5.32	5.50	5.49	0.24	0.20	0.40	0.24
Fewer than 4,000 HDD	N	N	1,298	1,043	N	N	5.41	6.02	N	N	0.21	0.18
2,000 CDD or More and --												
Fewer than 4,000 HDD	N	N	868	292	N	N	5.56	6.32	N	N	0.17	0.26
Workers (main shift)												
Fewer than 5	242	612	541	351	8.19	5.74	6.84	6.18	0.39	0.24	0.25	0.20
5 to 9	145	433	199	334	7.67	5.41	5.67	6.07	0.21	0.28	0.18	0.26
10 to 19	303	477	477	253	6.56	4.98	5.27	6.19	0.32	0.27	0.28	0.22
20 to 49	381	502	1,070	433	7.21	4.90	5.53	5.84	0.43	0.24	0.37	0.23
50 to 99	296	331	317	234	6.61	4.70	5.38	5.67	0.28	0.20	0.16	0.15
100 to 249	237	419	315	240	6.18	4.47	5.02	4.81	0.21	0.23	0.16	0.20
250 or More	290	503	375	300	4.85	3.59	4.62	4.44	0.15	0.25	0.16	0.17

Table C18. Natural Gas Expenditures by Census Region, 1999

	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars) per Thousand Cubic Feet				Natural Gas Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Weekly Operating Hours												
39 or Fewer	Q	168	Q	91	Q	5.57	7.89	5.59	Q	0.21	0.17	0.11
40 to 48	256	460	404	361	6.65	4.99	5.80	5.84	0.27	0.19	0.14	0.18
49 to 60	286	637	749	452	7.63	4.85	5.62	6.05	0.21	0.20	Q	0.19
61 to 84	527	602	Q	337	6.93	5.35	5.56	6.10	0.29	0.23	Q	0.18
85 to 167	257	653	581	320	7.02	4.88	5.21	5.62	0.22	0.30	0.30	0.26
Open Continuously	494	758	815	583	5.50	4.00	5.05	4.84	0.28	0.33	0.27	0.27
Ownership and Occupancy												
Nongovernment Owned	1,613	2,773	2,805	1,722	6.66	4.85	5.67	5.65	0.29	0.25	0.24	0.20
Owner Occupied	1,251	1,944	2,035	1,153	6.49	4.91	5.52	5.47	0.31	0.25	0.26	0.20
Nonowner Occupied	360	813	Q	566	7.30	4.73	6.12	6.05	0.23	0.25	0.21	0.21
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	281	504	488	422	5.83	4.27	4.59	5.24	0.17	0.21	0.20	0.21
Federal	Q	Q	38	53	Q	Q	3.98	4.90	Q	Q	0.14	0.22
State	Q	130	186	98	Q	3.80	3.91	4.75	Q	0.19	0.27	0.18
Local	204	327	265	271	5.65	4.58	5.35	5.51	0.19	0.23	0.18	0.22
Vacancy Status												
Completely Vacant	N	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.10	Q
Partially Vacant	243	611	443	304	6.20	4.95	5.55	5.50	0.13	0.19	0.13	0.13
Not At All Vacant	1,646	2,609	2,840	1,824	6.58	4.71	5.47	5.58	0.30	0.26	0.26	0.23
Number of Establishments												
One	1,348	2,398	2,593	1,599	6.42	4.63	5.40	5.51	0.30	0.26	0.29	0.23
2 to 5	293	607	328	296	6.76	5.29	5.69	5.91	0.24	0.24	0.16	0.18
6 to 10	Q	80	198	100	Q	5.52	6.28	5.18	Q	0.17	0.22	0.14
11 to 20	Q	104	68	52	Q	5.34	5.27	6.18	Q	0.23	0.11	0.14
More than 20	Q	70	71	Q	Q	3.67	5.40	5.87	Q	0.09	0.06	0.12
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than one may apply)												
Electricity	1,895	3,277	3,294	2,142	6.52	4.75	5.48	5.57	0.26	0.24	0.23	0.20
Natural Gas	1,895	3,277	3,294	2,144	6.52	4.75	5.48	5.56	0.26	0.24	0.23	0.20
Fuel Oil	404	637	481	263	5.16	3.85	4.33	4.30	0.16	0.33	0.21	0.20
District Heat	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
District Chilled Water	Q	36	71	Q	Q	4.15	3.91	Q	Q	0.13	0.14	Q
Propane	Q	Q	81	Q	Q	3.67	4.64	Q	Q	Q	0.11	Q
Other	Q	116	Q	Q	Q	4.02	Q	Q	Q	0.23	Q	Q
Space-Heating Energy Source												
Natural Gas	1,731	3,146	2,388	1,857	6.46	4.75	5.38	5.47	0.30	0.25	0.22	0.21
Natural Gas Main	1,549	2,940	2,087	1,650	6.48	4.71	5.29	5.50	0.32	0.26	0.24	0.22
Natural Gas Secondary	182	206	302	207	6.30	5.23	6.06	5.28	0.23	0.18	0.14	0.18
Other Excluding Natural Gas	138	108	616	204	7.14	5.11	5.61	5.97	0.09	0.11	0.24	0.15
Buildings without Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Primary Space-Heating Energy Source												
Electricity	Q	270	804	354	Q	5.36	5.94	5.72	Q	0.18	0.20	0.16
Natural Gas	1,549	2,940	2,087	1,650	6.48	4.71	5.29	5.50	0.32	0.26	0.24	0.22
Fuel Oil	89	Q	Q	Q	6.91	Q	Q	Q	0.13	Q	Q	Q
District Heat	45	29	99	Q	5.72	4.27	4.57	Q	0.05	0.06	0.21	Q
Propane	1	0	N	N	6.97	6.75	N	N	0.21	0.03	N	N
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.12	Q

Table C18. Natural Gas Expenditures by Census Region, 1999

	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars) per Thousand Cubic Feet				Natural Gas Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Cooling Energy Source												
Natural Gas	159	190	Q	117	5.16	5.01	Q	5.87	0.36	0.35	Q	0.18
Other Excluding Natural Gas	1,607	2,792	2,931	1,798	6.66	4.74	5.57	5.51	0.26	0.24	0.22	0.21
Buildings without Cooling	128	294	Q	229	6.98	4.78	4.80	5.87	0.22	0.24	Q	0.19
Water-Heating Energy Source												
Natural Gas	1,248	2,131	2,404	1,773	6.33	4.80	5.37	5.52	0.31	0.26	0.27	0.23
Other Excluding Natural Gas	555	658	677	259	6.82	4.30	5.60	5.58	0.20	0.20	0.17	0.13
Buildings without Water Heating	92	487	213	112	7.66	5.30	6.50	Q	0.23	0.27	0.17	0.17
Cooking Energy Source												
Natural Gas	782	1,096	1,216	925	5.93	4.31	5.03	5.38	0.23	0.25	0.23	0.26
Other Excluding Natural Gas	160	203	223	66	6.42	5.04	6.36	4.74	0.30	0.22	0.18	0.16
Buildings without Cooking	952	1,977	1,855	1,153	7.12	5.01	5.73	5.78	0.28	0.24	0.24	0.18
Energy End Uses (more than one may apply)												
Buildings with Space Heating	1,868	3,254	3,005	2,061	6.50	4.76	5.43	5.52	0.26	0.24	0.22	0.20
Buildings with Cooling	1,766	2,982	2,983	1,915	6.49	4.75	5.56	5.53	0.26	0.24	0.22	0.21
Buildings with Water Heating	1,802	2,790	3,081	2,032	6.47	4.67	5.42	5.53	0.26	0.24	0.24	0.21
Buildings with Cooking	942	1,300	1,439	990	6.01	4.41	5.20	5.34	0.24	0.24	0.22	0.25
Buildings with Manufacturing	Q	Q	178	81	Q	5.05	5.97	5.99	Q	0.35	0.26	0.18
Buildings with Electricity Generation	409	663	616	392	5.42	3.85	4.99	4.56	0.19	0.28	0.21	0.24
Percent of Floorspace Heated												
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	Q	193	200	191	Q	5.98	Q	5.46	Q	0.15	0.15	0.12
51 to 99	194	355	Q	354	6.63	5.10	5.69	5.76	0.18	0.17	Q	0.19
100	1,579	2,706	1,812	1,516	6.44	4.65	5.44	5.47	0.28	0.27	0.20	0.23
Percent of Floorspace Cooled												
Not Cooled	128	294	Q	229	6.98	4.78	4.80	5.87	0.22	0.24	Q	0.19
1 to 50	653	1,168	Q	335	6.58	4.52	5.92	5.38	0.26	0.26	Q	0.14
51 to 99	603	926	924	603	6.11	4.80	5.57	5.23	0.28	0.22	0.24	0.24
100	511	888	1,318	978	6.88	5.03	5.37	5.79	0.25	0.25	0.18	0.22
Heating Equipment (more than one may apply)												
Heat Pumps	161	164	931	225	5.66	4.18	5.39	5.14	0.17	0.24	0.34	0.18
Furnaces	486	1,438	Q	390	7.14	5.05	5.76	5.66	0.33	0.28	0.24	0.18
Individual Space Heaters	567	943	683	519	6.24	4.70	5.50	5.22	0.22	0.22	0.18	0.18
District Heat	160	45	121	Q	6.09	3.90	4.44	Q	0.16	0.08	0.22	Q
Boilers	809	1,427	851	887	5.92	4.34	4.97	4.90	0.23	0.25	0.23	0.24
Packaged Heating Units	657	1,194	1,456	985	6.52	4.49	5.48	5.77	0.22	0.25	0.20	0.19
Other	Q	Q	71	Q	Q	3.80	5.37	4.04	Q	Q	0.09	0.18
Cooling Equipment (more than one may apply)												
Residential-Type Central Air Conditioners	219	641	514	165	6.17	5.15	5.64	4.63	0.27	0.24	0.22	0.16
Heat Pumps	151	156	933	237	5.86	4.08	5.37	5.22	0.16	0.21	0.34	0.18
Individual Air Conditioners	599	854	716	349	5.70	4.57	6.13	5.51	0.23	0.25	0.23	0.22
District Chilled Water	Q	36	71	Q	Q	4.15	3.91	Q	Q	0.13	0.14	Q
Central Chillers	361	690	681	570	5.07	3.93	4.89	4.67	0.18	0.26	0.20	0.26
Packaged Air Conditioning Units	1,291	2,019	1,763	1,204	6.52	4.64	5.58	5.74	0.27	0.27	0.19	0.19
Swamp Coolers	Q	Q	Q	360	Q	Q	Q	5.54	Q	Q	Q	0.25
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q

Table C18. Natural Gas Expenditures by Census Region, 1999

	Total Natural Gas Expenditures (million dollars)				Natural Gas Expenditures (dollars) per Thousand Cubic Feet				Natural Gas Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Main Equipment Replaced Since 1995 (more than one may apply)												
Heating	388	729	739	575	6.48	5.20	5.92	6.11	0.31	0.24	0.21	0.23
Cooling	484	868	1,007	589	6.08	4.62	5.83	5.83	0.24	0.25	0.22	0.22
Water Heating Equipment												
Centralized System	1,371	1,795	2,178	1,419	6.61	4.95	5.45	5.61	0.29	0.23	0.28	0.22
Distributed System	169	479	435	326	7.47	4.04	5.90	5.88	0.16	0.24	0.16	0.18
Combination of Centralized and Distributed System	262	516	468	287	5.42	4.43	4.94	4.85	0.23	0.26	0.19	0.17
Annual Consumption (hundred cubic feet)												
1,000 or Less	20	77	128	86	11.09	7.75	7.87	8.33	0.05	0.08	0.07	0.06
1,001 to 5,000	335	670	547	497	8.31	6.20	6.99	6.71	0.24	0.20	0.15	0.17
5,001 to 10,000	256	463	424	276	7.72	5.14	6.15	5.83	0.23	0.26	0.18	0.18
10,001 to 25,000	586	651	601	548	6.77	4.93	5.77	5.94	0.35	0.23	0.24	0.25
25,001 to 50,000	169	329	376	228	6.55	4.74	4.90	5.14	0.20	0.21	0.25	0.23
50,001 to 100,000	166	321	Q	160	6.32	4.39	5.58	4.92	0.21	0.25	0.75	0.29
Over 100,000	363	765	585	349	4.74	3.71	4.09	4.13	0.33	0.43	0.41	0.35
Provider of Natural Gas (more than one may apply)												
Local Utility	1,477	2,880	2,982	1,912	6.64	4.86	5.64	5.67	0.24	0.24	0.23	0.20
Some Other Provider	377	371	311	Q	5.87	4.00	4.38	4.50	0.40	0.24	0.34	0.27

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
All Buildings	588	780	598	8,654	20,570	16,301	67.9	37.9	36.7
Principal Building Activity									
Education	22	122	76	566	3,620	2,385	38.7	33.8	31.9
Food Sales	Q	18	Q	Q	342	Q	Q	51.5	Q
Food Service	174	Q	Q	981	Q	Q	177.2	Q	Q
Health Care	Q	32	173	Q	453	1,624	Q	69.8	106.2
Inpatient	N	Q	169	N	Q	1,553	N	Q	109.0
Outpatient	Q	11	Q	Q	328	Q	Q	33.5	Q
Lodging	Q	93	59	Q	1,748	1,542	Q	53.1	38.5
Mercantile	60	88	32	1,315	3,395	3,178	45.5	26.0	10.1
Retail (Other Than Mall)	48	52	Q	1,070	1,886	Q	44.9	27.3	Q
Enclosed and Strip Malls	Q	37	25	Q	1,508	2,616	Q	24.4	9.6
Office	50	86	78	1,467	2,772	3,116	33.9	30.9	25.0
Public Assembly	31	47	16	638	1,622	728	47.9	29.1	21.7
Public Order and Safety	Q	20	Q	Q	423	Q	Q	46.8	Q
Religious Worship	21	38	Q	727	1,687	Q	28.8	22.8	Q
Service	132	Q	Q	1,081	714	Q	122.4	154.7	Q
Warehouse and Storage	Q	63	Q	643	2,810	2,758	60.4	22.4	44.1
Other	Q	Q	Q	Q	302	Q	Q	80.5	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Year Constructed									
1919 or Before	56	42	Q	946	1,453	Q	59.6	28.9	Q
1920 to 1945	73	70	46	1,065	1,755	1,437	68.7	40.0	31.8
1946 to 1959	69	113	66	1,406	2,899	1,735	49.2	39.1	38.0
1960 to 1969	140	120	101	1,305	3,249	2,958	107.5	36.9	34.1
1970 to 1979	100	114	103	1,650	3,520	2,910	60.5	32.5	35.3
1980 to 1989	54	198	128	970	4,247	3,576	55.7	46.7	35.7
1990 to 1999	95	122	136	1,312	3,448	3,316	72.5	35.4	41.1
Census Region and Division									
Northeast	75	113	103	978	2,824	3,503	76.5	40.0	29.3
New England	Q	27	23	Q	863	674	Q	31.5	34.8
Middle Atlantic	69	86	79	925	1,961	2,829	74.2	43.7	28.0
Midwest	194	239	257	2,886	5,775	4,846	67.1	41.3	53.0
East North Central	151	155	178	2,120	3,907	3,356	71.3	39.6	52.9
West North Central	43	84	79	766	1,868	1,490	55.6	45.0	53.3
South	194	261	146	2,625	6,735	4,840	73.9	38.7	30.2
South Atlantic	Q	71	73	778	2,500	2,239	Q	28.3	32.7
East South Central	29	126	25	604	1,885	1,019	48.3	Q	25.0
West South Central	66	64	48	1,243	2,349	1,582	53.4	27.4	30.1
West	125	168	92	2,165	5,237	3,113	57.8	32.1	29.6
Mountain	52	62	27	739	1,703	740	69.9	36.3	36.3
Pacific	74	106	65	1,426	3,533	2,373	51.5	30.0	27.5
Climate Zone: 45-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	74	88	59	979	1,943	1,142	76.0	45.2	52.1
5,500-7,000 HDD	147	224	253	1,956	5,609	5,008	75.3	39.9	50.5
4,000-5,499 HDD	178	199	128	2,039	3,876	4,539	87.3	51.5	28.1
Fewer than 4,000 HDD	99	198	115	2,240	6,061	3,849	44.4	32.7	30.0
2,000 CDD or More and --									
Fewer than 4,000 HDD	89	71	43	1,440	3,081	1,763	61.5	23.1	24.2

Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Workers (main shift)									
Fewer than 5	205	65	Q	3,981	2,999	Q	51.5	21.5	Q
5 to 9	122	57	Q	2,038	2,275	Q	59.6	25.2	Q
10 to 19	124	142	Q	1,535	3,488	Q	81.0	40.6	Q
20 to 49	131	262	30	969	5,399	1,369	135.1	48.6	21.7
50 to 99	Q	151	61	Q	3,914	2,295	Q	38.5	26.8
100 to 249	Q	82	160	Q	1,879	4,205	Q	43.8	38.0
250 or More	N	22	327	N	616	7,419	N	35.2	44.1
Weekly Operating Hours									
39 or Fewer	40	30	Q	1,307	1,210	Q	30.8	24.5	Q
40 to 48	111	122	28	2,469	4,426	1,302	45.1	27.7	21.7
49 to 60	102	217	57	2,046	5,296	2,372	49.8	41.1	24.1
61 to 84	139	135	74	1,501	3,705	3,802	92.3	36.5	19.6
85 to 167	153	107	78	853	2,672	2,923	179.7	40.2	26.6
Open Continuously	43	168	350	479	3,261	5,594	88.8	51.6	62.6
Ownership and Occupancy									
Nongovernment Owned	539	595	478	7,886	16,446	12,694	68.3	36.2	37.7
Owner Occupied	363	432	373	5,429	10,741	9,427	66.9	40.2	39.6
Nonowner Occupied	174	156	Q	2,296	5,434	3,238	75.8	28.7	Q
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	49	185	119	768	4,124	3,607	63.8	44.8	33.1
Federal	Q	15	20	Q	379	555	Q	40.6	35.5
State	Q	62	36	Q	1,137	986	Q	54.8	36.3
Local	35	107	64	577	2,608	2,065	60.8	41.1	30.9
Vacancy Status									
Completely Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant	45	123	130	1,263	3,938	5,524	35.5	31.1	23.5
Not At All Vacant	535	652	463	7,110	16,407	10,657	75.3	39.7	43.4
Number of Establishments									
One	480	588	430	6,630	14,200	8,887	72.4	41.4	48.4
2 to 5	92	99	74	1,651	3,436	2,352	55.9	28.9	31.6
6 to 10	Q	55	23	Q	1,480	845	Q	37.3	26.8
11 to 20	Q	18	30	Q	795	986	Q	22.8	30.6
More than 20	Q	Q	40	Q	Q	3,182	Q	Q	12.7
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than one may apply)									
Electricity	587	780	598	8,625	20,570	16,301	68.1	37.9	36.7
Natural Gas	588	780	598	8,654	20,570	16,301	67.9	37.9	36.7
Fuel Oil	Q	78	334	Q	1,594	6,386	Q	48.7	52.4
District Heat	Q	Q	46	Q	Q	1,758	Q	Q	Q
District Chilled Water	Q	17	33	Q	486	808	Q	35.8	41.4
Propane	Q	19	Q	Q	536	1,278	Q	35.4	Q
Other	Q	20	40	Q	603	814	Q	33.2	48.7
Space-Heating Energy Source									
Natural Gas	480	687	547	7,863	17,494	12,546	61.0	39.3	43.6
Natural Gas Main	462	596	499	7,373	14,997	10,360	62.6	39.7	48.2
Natural Gas Secondary	18	91	48	490	2,497	2,186	36.7	36.5	22.0
Other Excluding Natural Gas	Q	77	49	504	2,520	3,468	115.5	30.6	14.2
Buildings without Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q

Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Primary Space-Heating Energy Source									
Electricity	74	138	63	862	4,030	3,545	85.6	34.2	17.7
Natural Gas	462	596	499	7,373	14,997	10,360	62.6	39.7	48.2
Fuel Oil	Q	Q	5	Q	355	500	Q	30.2	10.1
District Heat	Q	16	29	Q	502	1,520	Q	31.5	19.1
Propane	0	0	N	5	6	N	4.1	30.4	N
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Cooling Energy Source									
Natural Gas	Q	29	33	Q	907	469	Q	31.4	71.2
Other Excluding Natural Gas	443	687	554	6,784	18,352	15,098	65.3	37.4	36.7
Buildings without Cooling	108	65	11	1,333	1,311	734	81.1	49.4	14.7
Water-Heating Energy Source									
Natural Gas	405	553	452	4,923	13,747	10,526	82.2	40.2	42.9
Other Excluding Natural Gas	104	163	134	2,035	5,177	4,958	51.2	31.6	27.1
Buildings without Water Heating	79	64	12	1,697	1,646	817	46.6	38.7	14.2
Cooking Energy Source									
Natural Gas	198	241	361	1,479	5,412	9,893	133.6	44.6	36.5
Other Excluding Natural Gas	Q	49	48	Q	1,461	1,375	Q	33.5	34.6
Buildings without Cooking	373	490	189	6,938	13,697	5,033	53.7	35.8	37.6
Energy End Uses (more than one may apply)									
Buildings with Space Heating	538	764	597	8,366	20,004	16,014	64.3	38.2	37.3
Buildings with Cooling	480	716	587	7,321	19,259	15,567	65.5	37.2	37.7
Buildings with Water Heating	509	717	586	6,957	18,924	15,484	73.1	37.9	37.9
Buildings with Cooking	215	290	409	1,716	6,873	11,268	125.4	42.3	36.3
Buildings with Manufacturing	Q	43	Q	Q	1,124	921	Q	38.6	62.5
Buildings with Electricity Generation	Q	104	315	Q	2,303	6,579	Q	45.2	47.9
Percent of Floorspace Heated									
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	37	Q	Q	1,140	2,376	1,357	32.5	Q	22.0
51 to 99	96	163	75	1,417	3,705	2,929	67.7	44.1	25.7
100	405	542	491	5,809	13,923	11,727	69.7	38.9	41.9
Percent of Floorspace Cooled									
Not Cooled	108	65	11	1,333	1,311	734	81.1	49.4	14.7
1 to 50	126	255	164	2,082	6,321	3,665	60.5	40.4	44.7
51 to 99	135	192	245	1,687	5,068	5,939	80.2	38.0	41.2
100	218	268	178	3,553	7,870	5,963	61.5	34.1	29.9
Heating Equipment (more than one may apply)									
Heat Pumps	Q	Q	114	530	2,511	2,587	Q	Q	44.1
Furnaces	207	208	135	3,852	5,430	2,678	53.8	38.3	50.5
Individual Space Heaters	116	196	203	1,603	5,888	6,070	72.3	33.3	33.4
District Heat	Q	31	45	Q	657	1,690	Q	47.7	26.4
Boilers	79	321	417	903	6,918	8,767	87.4	46.4	47.6
Packaged Heating Units	198	296	309	2,911	8,851	8,281	67.8	33.5	37.3
Other	Q	32	Q	Q	1,001	1,483	Q	32.2	Q

Table C19. Natural Gas Consumption and Conditional Energy Intensity by Building Size, 1999

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet	1,001 to 10,000 Square Feet	10,001 to 100,000 Square Feet	Over 100,000 Square Feet
Cooling Equipment (more than one may apply)									
Residential-Type Central Air Conditioners	84	91	112	1,770	2,840	2,195	47.3	31.9	51.2
Heat Pumps	Q	Q	116	525	2,510	2,735	Q	Q	42.2
Individual Air Conditioners	87	195	190	1,395	4,833	4,487	62.4	40.3	42.4
District Chilled Water	Q	17	33	Q	486	808	Q	35.8	41.4
Central Chillers	Q	118	374	Q	2,366	7,611	Q	49.9	49.2
Packaged Air Conditioning Units	297	424	439	4,059	12,884	11,045	73.1	32.9	39.7
Swamp Coolers	Q	32	33	Q	838	708	Q	38.6	47.0
Other	Q	13	Q	Q	329	Q	Q	38.3	Q
Main Equipment Replaced Since 1995 (more than one may apply)									
Heating	146	192	81	2,125	5,264	2,938	68.6	36.4	27.7
Cooling	144	223	174	1,877	6,176	4,810	77.0	36.1	36.2
Water Heating Equipment									
Centralized System	433	512	278	5,536	12,911	8,032	78.2	39.6	34.6
Distributed System	53	90	Q	1,221	3,114	3,251	43.2	28.9	39.3
Combination of Centralized and Distributed System	Q	115	181	Q	2,900	4,200	Q	39.6	43.1
Annual Consumption (hundred cubic feet)									
1,000 or Less	35	3	0	2,581	1,578	438	13.5	2.2	0.2
1,001 to 5,000	223	76	2	4,485	5,573	1,135	49.7	13.6	1.4
5,001 to 10,000	117	118	4	875	4,750	1,214	133.5	24.9	3.5
10,001 to 25,000	146	247	22	574	5,732	2,867	254.3	43.1	7.7
25,001 to 50,000	Q	129	52	Q	1,900	2,930	Q	67.7	17.7
50,001 to 100,000	Q	138	76	Q	849	2,573	Q	162.5	29.5
Over 100,000	N	Q	442	N	Q	5,144	N	Q	85.9
Provider of Natural Gas (more than one may apply)									
Local Utility	545	698	438	8,199	18,998	13,567	66.5	36.8	32.3
Some Other Provider	Q	70	179	Q	1,248	2,735	Q	55.9	65.3

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
All Buildings	555	1,058	354	13,063	24,386	8,076	42.5	43.4	43.8
Building Floorspace (Square Feet)									
1,001 to 5,000	101	147	Q	1,535	1,609	Q	65.5	91.1	Q
5,001 to 10,000	98	147	39	1,882	2,316	891	52.1	63.6	43.6
10,001 to 25,000	107	177	25	2,505	3,746	750	42.8	47.3	33.9
25,001 to 50,000	71	111	46	1,814	3,308	1,282	38.9	33.6	35.5
50,001 to 100,000	48	144	51	1,787	3,962	1,416	26.8	36.4	36.0
100,001 to 200,000	48	133	42	1,291	3,406	1,219	37.2	39.0	34.9
200,001 to 500,000	43	114	Q	1,280	2,896	1,106	33.8	39.5	Q
Over 500,000	39	84	21	970	3,143	991	40.2	26.8	21.3
Principal Building Activity									
Education	105	85	30	2,609	3,100	861	40.1	27.5	35.2
Food Sales	Q	Q	14	Q	Q	315	Q	Q	43.5
Food Service	Q	95	Q	Q	727	Q	Q	130.2	Q
Health Care	49	144	Q	479	1,460	Q	101.9	98.5	Q
Inpatient	Q	134	Q	Q	1,142	Q	Q	117.0	Q
Outpatient	Q	10	Q	Q	318	Q	Q	32.0	Q
Lodging	27	121	28	581	2,308	660	47.2	52.5	42.0
Mercantile	74	78	28	2,095	4,207	1,585	35.2	18.6	18.0
Retail (Other Than Mall)	55	37	15	1,491	1,218	809	36.7	30.6	18.3
Enclosed and Strip Malls	Q	41	14	Q	2,989	777	Q	13.7	17.7
Office	59	128	25	1,841	4,403	1,113	32.2	29.2	22.9
Public Assembly	30	45	19	980	1,380	628	30.4	32.4	30.4
Public Order and Safety	Q	Q	Q	Q	Q	Q	Q	Q	Q
Religious Worship	27	29	Q	929	1,335	Q	28.6	22.0	Q
Service	53	191	Q	743	1,156	Q	70.9	164.9	Q
Warehouse and Storage	27	100	Q	1,417	3,409	1,385	19.3	29.4	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Census Region and Division									
Northeast	133	126	32	2,860	3,389	1,056	46.4	37.2	30.2
New England	25	25	Q	535	818	Q	47.2	30.3	Q
Middle Atlantic	107	101	25	2,325	2,570	819	46.2	39.4	30.6
Midwest	245	309	136	4,876	6,261	2,369	50.2	49.3	57.3
East North Central	192	182	Q	3,811	3,954	1,618	50.4	46.1	67.4
West North Central	53	126	27	1,065	2,307	752	49.6	54.8	35.5
South	94	400	106	3,034	8,381	2,785	31.1	47.7	38.2
South Atlantic	39	149	Q	1,002	3,248	1,267	39.3	45.8	Q
East South Central	28	138	15	729	2,035	744	37.8	67.9	19.5
West South Central	27	113	Q	1,303	3,098	773	21.1	36.5	48.8
West	83	223	79	2,294	6,356	1,865	36.1	35.1	42.6
Mountain	44	78	19	903	1,698	582	48.4	46.0	32.1
Pacific	39	145	61	1,391	4,658	1,283	28.2	31.1	47.3
Climate Zone: 45-Year Average									
Under 2,000 CDD and --									
More than 7,000 HDD	69	108	44	1,191	2,150	723	58.3	50.3	61.2
5,500-7,000 HDD	234	274	Q	4,442	5,919	2,211	52.8	46.3	52.2
4,000-5,499 HDD	145	285	74	3,614	5,087	1,754	40.2	56.1	42.4
Fewer than 4,000 HDD	65	266	82	2,250	7,377	2,522	28.8	36.0	32.7
2,000 CDD or More and --									
Fewer than 4,000 HDD	40	125	Q	1,566	3,853	866	25.8	32.4	Q

Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Workers (main shift)									
Fewer than 5	119	124	28	3,293	3,012	803	36.2	41.3	35.5
5 to 9	64	97	Q	1,575	2,479	579	40.6	39.3	47.9
10 to 19	103	128	Q	2,119	2,647	822	48.5	48.2	52.4
20 to 49	94	255	73	2,039	4,040	1,658	46.3	63.2	44.0
50 to 99	53	126	36	1,193	3,865	1,219	44.3	32.7	29.5
100 to 249	51	137	57	1,234	3,452	1,461	41.0	39.6	39.1
250 or More	71	190	Q	1,610	4,890	1,534	43.9	38.8	Q
Weekly Operating Hours									
39 or Fewer	33	43	Q	1,088	1,534	Q	30.8	28.0	Q
40 to 48	112	117	33	3,182	3,973	1,042	35.2	29.6	31.2
49 to 60	116	200	61	3,366	4,848	1,500	34.3	41.3	40.5
61 to 84	115	199	35	2,217	5,133	1,658	51.7	38.7	20.9
85 to 167	73	173	93	1,379	3,406	1,664	53.2	50.7	55.6
Open Continuously	106	325	130	1,832	5,493	2,009	57.7	59.2	64.5
Ownership and Occupancy									
Nongovernment Owned	435	886	292	10,227	20,216	6,582	42.5	43.8	44.3
Owner Occupied	331	658	179	7,365	13,759	4,473	44.9	47.8	40.1
Nonowner Occupied	102	221	Q	2,673	6,191	2,104	38.2	35.6	53.3
Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Government Owned	120	172	62	2,836	4,170	1,494	42.2	41.2	41.5
Federal	15	15	Q	462	345	Q	Q	42.9	Q
State	29	61	21	658	1,192	403	43.7	51.0	53.0
Local	76	96	34	1,716	2,634	901	44.2	36.5	37.9
Vacancy Status									
Completely Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Mostly Vacant	Q	Q	Q	Q	Q	Q	Q	Q	Q
Partially Vacant	102	146	49	2,948	5,749	2,029	34.5	25.5	24.4
Not At All Vacant	441	905	304	9,706	18,438	6,030	45.4	49.1	50.4
Number of Establishments									
One	399	805	295	8,812	15,253	5,652	45.2	52.8	52.2
2 to 5	95	140	31	2,476	3,698	1,265	38.5	37.8	24.2
6 to 10	31	44	Q	577	1,627	Q	54.5	27.3	Q
11 to 20	Q	27	Q	Q	1,112	Q	Q	24.6	Q
More than 20	18	32	Q	631	2,400	Q	27.9	13.4	Q
Currently Unoccupied	Q	Q	Q	Q	Q	Q	Q	Q	Q
Energy Sources (more than one may apply)									
Electricity	554	1,058	354	13,034	24,386	8,076	42.5	43.4	43.8
Natural Gas	555	1,058	354	13,063	24,386	8,076	42.5	43.4	43.8
Fuel Oil	74	250	Q	1,788	4,771	1,529	41.3	52.4	Q
District Heat	Q	Q	Q	Q	1,163	Q	Q	Q	Q
District Chilled Water	Q	33	Q	Q	725	Q	Q	46.2	Q
Propane	Q	41	Q	Q	1,107	Q	Q	37.4	Q
Other	35	28	Q	557	768	Q	62.2	36.8	Q
Space-Heating Energy Source									
Natural Gas	500	911	303	11,297	19,947	6,658	44.3	45.7	45.5
Natural Gas Main	470	817	270	10,205	16,847	5,677	46.0	48.5	47.6
Natural Gas Secondary	31	94	32	1,092	3,100	981	28.0	30.4	33.1
Other Excluding Natural Gas	49	85	Q	1,671	3,503	1,318	29.3	24.3	Q
Buildings without Heating	Q	Q	Q	Q	Q	Q	Q	Q	Q

Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Primary Space-Heating Energy Source									
Electricity	59	138	77	1,334	5,109	1,993	43.9	27.1	38.8
Natural Gas	470	817	270	10,205	16,847	5,677	46.0	48.5	47.6
Fuel Oil	9	6	Q	418	429	Q	21.2	14.7	Q
District Heat	11	31	Q	885	967	Q	12.4	32.1	Q
Propane	N	0	N	N	10	N	N	18.6	N
Other	Q	Q	N	Q	Q	N	Q	Q	N
Cooling Energy Source									
Natural Gas	25	57	Q	470	1,028	Q	53.6	55.4	Q
Other Excluding Natural Gas	459	903	321	10,651	22,169	7,413	43.1	40.7	43.3
Buildings without Cooling	70	Q	Q	1,943	1,188	Q	36.1	82.3	Q
Water-Heating Energy Source									
Natural Gas	382	790	238	8,411	15,573	5,211	45.4	50.7	45.7
Other Excluding Natural Gas	105	206	Q	2,986	7,094	2,090	35.1	29.0	Q
Buildings without Water Heating	68	62	Q	1,666	1,719	775	41.0	36.1	31.1
Cooking Energy Source									
Natural Gas	246	419	135	4,690	9,030	3,065	52.4	46.4	44.0
Other Excluding Natural Gas	45	54	15	841	1,605	627	53.7	33.9	23.5
Buildings without Cooking	264	584	204	7,533	13,751	4,384	35.0	42.5	46.5
Energy End Uses (more than one may apply)									
Buildings with Space Heating	549	996	353	12,968	23,450	7,966	42.3	42.5	44.3
Buildings with Cooling	484	960	338	11,120	23,198	7,829	43.6	41.4	43.1
Buildings with Water Heating	486	996	329	11,398	22,667	7,301	42.7	43.9	45.1
Buildings with Cooking	291	474	150	5,530	10,635	3,692	52.6	44.5	40.6
Buildings with Manufacturing	31	Q	19	773	1,167	382	40.2	51.4	50.6
Buildings with Electricity Generation	78	261	Q	1,412	5,390	2,317	55.5	48.4	Q
Percent of Floorspace Heated									
Not Heated	Q	Q	Q	Q	Q	Q	Q	Q	Q
1 to 50	39	67	21	1,889	2,230	754	20.5	30.0	27.3
51 to 99	91	185	59	2,540	4,024	1,487	35.8	45.9	39.7
100	420	745	274	8,539	17,196	5,725	49.1	43.3	47.8
Percent of Floorspace Cooled									
Not Cooled	70	Q	Q	1,943	1,188	Q	36.1	82.3	Q
1 to 50	174	260	Q	4,434	5,705	1,929	39.3	45.6	Q
51 to 99	181	295	96	3,321	6,839	2,534	54.6	43.1	38.0
100	129	405	131	3,366	10,653	3,366	38.3	38.0	38.8
Heating Equipment (more than one may apply)									
Heat Pumps	46	189	Q	1,239	3,131	1,256	37.2	60.4	Q
Furnaces	150	290	Q	4,114	5,887	1,959	36.5	49.2	Q
Individual Space Heaters	154	284	77	4,216	7,172	2,173	36.5	39.6	35.5
District Heat	29	43	Q	1,005	1,119	Q	28.7	38.6	Q
Boilers	275	430	113	5,438	8,936	2,214	50.5	48.1	51.0
Packaged Heating Units	150	460	193	3,778	11,828	4,437	39.8	38.9	43.4
Other	25	47	Q	768	1,378	534	33.1	34.2	Q

Table C20. Natural Gas Consumption and Conditional Energy Intensity by Year Constructed, 1999

	Total Natural Gas Consumption (billion cubic feet)			Total Floorspace of Buildings Using Natural Gas (million square feet)			Natural Gas Energy Intensity (cubic feet/square foot)		
	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999	1959 or Before	1960 to 1989	1990 to 1999
Cooling Equipment (more than one may apply)									
Residential-Type Central Air Conditioners	83	161	43	2,046	3,786	973	40.7	42.4	44.0
Heat Pumps	48	185	Q	1,318	3,242	1,211	36.6	57.2	Q
Individual Air Conditioners	216	218	38	4,707	4,873	1,136	45.9	44.8	33.4
District Chilled Water	Q	33	Q	Q	725	Q	Q	46.2	Q
Central Chillers	96	280	132	2,025	6,209	1,911	47.4	45.0	69.1
Packaged Air Conditioning Units	291	644	225	6,589	16,086	5,312	44.1	40.0	42.3
Swamp Coolers	Q	67	Q	Q	1,188	Q	Q	56.4	Q
Other	Q	Q	Q	Q	535	Q	Q	45.3	Q
Main Equipment Replaced Since 1995 (more than one may apply)									
Heating	151	239	Q	3,491	6,260	576	43.1	38.1	Q
Cooling	194	311	36	4,248	7,907	708	45.7	39.3	51.4
Water Heating Equipment									
Centralized System	335	696	192	7,725	14,543	4,211	43.3	47.8	45.5
Distributed System	60	125	Q	1,719	4,265	1,602	35.0	29.2	Q
Combination of Centralized and Distributed System	91	175	52	1,954	3,859	1,488	46.7	45.4	35.0
Annual Consumption (hundred cubic feet)									
1,000 or Less	16	20	2	1,748	2,404	444	9.4	8.1	5.1
1,001 to 5,000	116	141	43	3,847	5,519	1,827	30.2	25.6	23.7
5,001 to 10,000	86	110	43	2,055	3,418	1,366	42.0	32.1	31.7
10,001 to 25,000	131	228	57	2,435	5,130	1,608	53.7	44.4	35.4
25,001 to 50,000	60	98	58	1,249	2,566	1,099	48.4	38.2	52.6
50,001 to 100,000	37	173	36	687	1,976	814	53.9	87.5	43.8
Over 100,000	107	289	Q	1,042	3,373	918	103.1	85.7	124.6
Provider of Natural Gas (more than one may apply)									
Local Utility	462	935	284	11,629	21,888	7,248	39.8	42.7	39.2
Some Other Provider	94	137	Q	1,233	2,357	676	76.6	58.2	70.0

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C21. Total Fuel Oil Consumption and Expenditures, 1999

	All Buildings Using Fuel Oil			Fuel Oil Consumption		Fuel Oil Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million gallons)	Total (million dollars)
All Buildings	434	13,285	31	179	1,294	956
Building Floorspace (Square Feet)						
1,001 to 5,000	220	620	3	29	210	197
5,001 to 10,000	74	583	8	Q	Q	95
10,001 to 25,000	65	983	15	24	177	145
25,001 to 50,000	28	983	35	25	183	131
50,001 to 100,000	22	1,612	75	24	175	114
100,001 to 200,000	13	1,875	144	19	140	87
200,001 to 500,000	9	2,984	315	25	180	120
Over 500,000	4	3,645	961	16	113	68
Principal Building Activity						
Education	19	1,635	86	48	347	208
Food Sales	Q	Q	Q	Q	Q	Q
Food Service	Q	Q	Q	Q	Q	Q
Health Care	14	1,754	128	19	139	87
Inpatient	9	1,605	Q	18	128	79
Outpatient	Q	Q	Q	Q	Q	Q
Lodging	7	789	109	Q	Q	26
Mercantile	87	1,411	16	Q	Q	Q
Retail (Other Than Mall)	76	553	7	Q	Q	Q
Enclosed and Strip Malls	11	858	79	Q	Q	Q
Office	88	3,913	44	29	213	168
Public Assembly	Q	850	36	Q	Q	Q
Public Order and Safety	Q	398	20	7	47	Q
Religious Worship	Q	Q	Q	Q	Q	Q
Service	80	641	8	18	128	102
Warehouse and Storage	18	1,102	Q	8	61	55
Other	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q
Year Constructed						
1919 or Before	53	745	14	26	190	149
1920 to 1945	55	1,060	19	22	159	119
1946 to 1959	109	1,782	16	33	236	184
1960 to 1969	65	2,349	36	36	258	185
1970 to 1979	37	2,446	66	29	207	132
1980 to 1989	70	2,795	40	21	151	113
1990 to 1999	Q	2,108	Q	13	93	73
Census Region and Division						
Northeast	218	5,414	25	138	994	704
New England	90	2,254	25	73	525	362
Middle Atlantic	128	3,160	25	65	469	342
Midwest	48	2,423	50	5	34	27
East North Central	28	1,299	46	Q	Q	13
West North Central	20	1,123	Q	2	18	14
South	138	3,749	27	29	210	180
South Atlantic	98	2,457	25	26	186	157
East South Central	Q	546	47	Q	Q	Q
West South Central	Q	747	Q	1	4	5
West	30	1,699	Q	8	56	45
Mountain	9	379	40	1	10	8
Pacific	Q	1,321	Q	Q	Q	Q

Table C21. Total Fuel Oil Consumption and Expenditures, 1999

	All Buildings Using Fuel Oil			Fuel Oil Consumption		Fuel Oil Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million gallons)	Total (million dollars)
Climate Zone: 45-Year Average						
Under 2,000 CDD and --						
More than 7,000 HDD	73	1,612	22	41	293	206
5,500-7,000 HDD	123	3,773	31	62	444	319
4,000-5,499 HDD	185	4,531	24	69	499	369
Fewer than 4,000 HDD	19	1,903	103	Q	Q	Q
2,000 CDD or More and --						
Fewer than 4,000 HDD	34	1,466	Q	2	14	15
Workers (main shift)						
Fewer than 5	182	964	5	20	146	132
5 to 9	95	796	8	23	167	147
10 to 19	54	676	13	Q	Q	Q
20 to 49	54	1,294	24	29	206	153
50 to 99	17	1,593	94	33	241	153
100 to 249	18	2,482	137	27	194	120
250 or More	15	5,480	373	28	200	136
Weekly Operating Hours						
39 or Fewer	65	504	8	11	79	68
40 to 48	102	1,540	15	35	250	183
49 to 60	110	2,638	24	43	308	245
61 to 84	63	2,500	40	31	224	164
85 to 167	29	1,532	53	28	202	136
Open Continuously	65	4,571	70	32	230	160
Ownership and Occupancy						
Nongovernment Owned	386	9,893	26	121	875	693
Owner Occupied	311	8,284	27	105	757	591
Nonowner Occupied	75	1,605	21	16	118	101
Unoccupied	Q	Q	Q	Q	Q	Q
Government Owned	48	3,392	71	58	420	263
Federal	4	748	194	3	22	17
State	6	822	130	6	46	29
Local	38	1,823	48	49	352	217
Vacancy Status						
Completely Vacant	N	N	N	N	N	N
Mostly Vacant	Q	Q	Q	Q	Q	Q
Partially Vacant	51	3,528	69	24	175	128
Not At All Vacant	376	9,639	26	154	1,114	823
Number of Establishments						
One	346	8,327	24	136	984	727
2 to 5	71	1,795	25	26	185	137
6 to 10	5	481	91	Q	Q	18
11 to 20	5	810	156	10	71	47
More than 20	6	1,861	318	4	30	25
Currently Unoccupied	Q	Q	Q	Q	Q	Q
Energy Sources (more than one may apply)						
Electricity	434	13,277	31	179	1,292	953
Natural Gas	91	8,088	89	59	424	297
Fuel Oil	434	13,285	31	179	1,294	956
District Heat	8	1,839	Q	Q	Q	23
District Chilled Water	3	749	241	Q	Q	Q
Propane	80	2,296	29	51	365	272
Other	26	554	21	9	64	55

Table C21. Total Fuel Oil Consumption and Expenditures, 1999

	All Buildings Using Fuel Oil			Fuel Oil Consumption		Fuel Oil Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million gallons)	Total (million dollars)
Space-Heating Energy Source						
Fuel Oil	377	5,611	15	172	1,242	909
Fuel Oil Main	302	3,719	12	153	1,103	802
Fuel Oil Secondary	74	1,892	25	19	139	108
Other Excluding Fuel Oil	55	7,463	135	7	50	44
Buildings without Heating	Q	Q	Q	Q	Q	Q
Primary Space-Heating Energy Source						
Electricity	64	2,710	43	10	74	Q
Natural Gas	54	4,852	89	13	96	71
Fuel Oil	302	3,719	12	153	1,103	802
District Heat	6	1,578	249	1	8	7
Propane	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q
Cooling Energy Source						
Fuel Oil	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	302	12,058	40	140	1,007	733
Buildings without Cooling	132	1,100	8	34	248	198
Water-Heating Energy Source						
Fuel Oil	110	2,218	20	92	666	454
Other Excluding Fuel Oil	178	9,634	54	70	507	395
Buildings without Water Heating	146	1,433	10	17	122	107
Cooking Energy Source						
Fuel Oil	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	92	7,756	84	84	605	402
Buildings without Cooking	342	5,445	16	94	677	547
Energy End Uses (more than one may apply)						
Buildings with Space Heating	432	13,074	30	179	1,292	954
Buildings with Cooling	302	12,185	40	145	1,046	758
Buildings with Water Heating	288	11,852	41	163	1,173	849
Buildings with Cooking	92	7,840	85	86	618	409
Buildings with Manufacturing	35	555	16	7	50	39
Buildings with Electricity Generation	75	8,749	117	48	344	243
Percent of Floorspace Heated						
Not Heated	Q	Q	Q	Q	Q	Q
1 to 50	62	1,113	18	9	65	49
51 to 99	59	2,584	44	20	148	125
100	311	9,377	30	150	1,079	779
Heating Equipment (more than one may apply)						
Heat Pumps	Q	2,263	59	9	66	51
Furnaces	172	2,090	12	33	238	212
Individual Space Heaters	115	4,351	38	32	228	170
District Heat	7	1,787	245	Q	Q	Q
Boilers	170	7,485	44	142	1,021	705
Packaged Heating Units	40	4,237	106	25	180	132
Other	39	1,463	37	9	64	48

Table C21. Total Fuel Oil Consumption and Expenditures, 1999

	All Buildings Using Fuel Oil			Fuel Oil Consumption		Fuel Oil Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million gallons)	Total (million dollars)
Water Heating Equipment						
Centralized System	228	6,533	29	120	866	631
Distributed System	37	1,870	51	20	144	111
Combination of Centralized and Distributed System	23	3,448	148	23	164	108
Annual Consumption (gallons)						
1,000 or Less	233	7,380	32	10	76	80
1,001 to 5,000	152	2,419	16	44	321	281
5,001 to 10,000	29	907	32	26	188	148
10,001 to 25,000	12	944	77	27	195	131
Over 25,000	8	1,636	205	71	514	317

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C22. Fuel Oil Consumption and Expenditure Intensities, 1999

	Fuel Oil Consumption			Fuel Oil Expenditures		
	per Building (gallons)	per Square Foot (gallons)	per Worker (gallons)	per Building (thousand dollars)	per Square Foot (dollars)	per Gallon (dollars)
All Buildings	2,983	0.10	66.1	2.2	0.07	0.74
Building Floorspace (Square Feet)						
1,001 to 5,000	956	0.34	190.7	0.9	0.32	0.94
5,001 to 10,000	1,584	0.20	131.7	1.3	0.16	0.81
10,001 to 25,000	2,736	0.18	210.2	2.2	0.15	0.82
25,001 to 50,000	6,559	0.19	159.7	4.7	0.13	0.72
50,001 to 100,000	8,095	0.11	66.7	5.3	0.07	0.65
100,001 to 200,000	10,782	0.07	55.9	6.7	0.05	0.62
200,001 to 500,000	19,069	0.06	35.1	12.7	0.04	0.67
Over 500,000	29,742	0.03	21.1	17.8	0.02	0.60
Principal Building Activity						
Education	18,341	0.21	245.5	11.0	0.13	0.60
Food Sales	Q	Q	Q	Q	Q	Q
Food Service	Q	Q	Q	Q	Q	Q
Health Care	10,153	0.08	41.7	6.4	0.05	0.63
Inpatient	14,566	0.08	42.3	Q	0.05	0.62
Outpatient	Q	Q	Q	Q	Q	Q
Lodging	4,820	Q	73.5	3.6	0.03	0.75
Mercantile	1,398	0.09	Q	1.2	0.08	0.89
Retail (Other Than Mall)	1,258	0.17	184.5	1.1	0.15	0.88
Enclosed and Strip Malls	Q	Q	Q	2.1	Q	Q
Office	2,418	0.05	21.6	1.9	0.04	0.79
Public Assembly	3,730	0.10	Q	2.8	0.08	0.75
Public Order and Safety	2,335	Q	65.9	Q	Q	Q
Religious Worship	Q	Q	Q	Q	Q	Q
Service	1,610	0.20	Q	1.3	0.16	0.80
Warehouse and Storage	Q	0.06	Q	Q	0.05	0.91
Other	Q	Q	Q	Q	Q	Q
Vacant	Q	Q	Q	Q	Q	Q
Year Constructed						
1919 or Before	3,585	0.26	185.7	2.8	0.20	0.78
1920 to 1945	2,915	0.15	160.0	2.2	0.11	0.75
1946 to 1959	2,170	0.13	88.5	1.7	0.10	0.78
1960 to 1969	3,965	0.11	74.9	2.8	0.08	0.72
1970 to 1979	5,623	0.08	64.3	3.6	0.05	0.64
1980 to 1989	2,137	0.05	30.2	1.6	0.04	0.75
1990 to 1999	Q	0.04	28.7	Q	0.03	0.79
Census Region and Division						
Northeast	4,555	0.18	143.9	3.2	0.13	0.71
New England	5,823	0.23	236.5	4.0	0.16	0.69
Middle Atlantic	3,663	0.15	100.1	2.7	0.11	0.73
Midwest	713	0.01	8.9	0.6	0.01	0.79
East North Central	586	Q	Q	0.5	Q	0.79
West North Central	Q	0.02	Q	Q	0.01	0.79
South	1,525	0.06	34.4	1.3	0.05	0.86
South Atlantic	1,889	0.08	43.2	1.6	0.06	0.85
East South Central	1,719	Q	Q	1.5	Q	0.87
West South Central	Q	0.01	4.0	Q	0.01	1.17
West	1,897	0.03	Q	1.5	0.03	0.80
Mountain	Q	0.03	15.4	Q	0.02	0.82
Pacific	Q	Q	Q	1.8	Q	0.79

Table C22. Fuel Oil Consumption and Expenditure Intensities, 1999

	Fuel Oil Consumption			Fuel Oil Expenditures		
	per Building (gallons)	per Square Foot (gallons)	per Worker (gallons)	per Building (thousand dollars)	per Square Foot (dollars)	per Gallon (dollars)
Climate Zone: 45-Year Average						
Under 2,000 CDD and --						
More than 7,000 HDD	3,998	0.18	179.4	2.8	0.13	0.71
5,500-7,000 HDD	3,624	0.12	82.5	2.6	0.08	0.72
4,000-5,499 HDD	2,694	0.11	66.9	2.0	0.08	0.74
Fewer than 4,000 HDD	Q	Q	Q	Q	Q	1.04
2,000 CDD or More and --						
Fewer than 4,000 HDD	Q	0.01	6.5	Q	0.01	1.05
Workers (main shift)						
Fewer than 5	804	0.15	370.4	0.7	0.14	0.90
5 to 9	1,759	0.21	273.7	1.6	0.19	0.88
10 to 19	2,602	0.21	212.3	2.1	0.17	0.82
20 to 49	3,838	0.16	130.5	2.9	0.12	0.74
50 to 99	14,300	0.15	220.7	9.1	0.10	0.63
100 to 249	10,675	0.08	73.1	6.6	0.05	0.62
250 or More	13,580	0.04	15.9	9.2	0.02	0.68
Weekly Operating Hours						
39 or Fewer	Q	Q	118.3	Q	0.14	0.86
40 to 48	2,457	0.16	123.0	1.8	0.12	0.73
49 to 60	2,799	0.12	81.7	2.2	0.09	0.80
61 to 84	3,568	0.09	65.7	2.6	0.07	0.73
85 to 167	6,912	0.13	111.1	4.6	0.09	0.67
Open Continuously	3,537	0.05	29.3	2.5	0.03	0.69
Ownership and Occupancy						
Nongovernment Owned	2,267	0.09	57.1	1.8	0.07	0.79
Owner Occupied	2,435	0.09	59.5	1.9	0.07	0.78
Nonowner Occupied	1,573	0.07	45.0	1.3	0.06	0.86
Unoccupied	Q	Q	N	Q	Q	Q
Government Owned	8,739	0.12	98.7	5.5	0.08	0.63
Federal	5,740	0.03	14.2	4.4	0.02	0.76
State	7,232	0.06	60.2	4.6	0.04	0.63
Local	9,296	0.19	182.2	5.7	0.12	0.62
Vacancy Status						
Completely Vacant	N	N	N	N	N	N
Mostly Vacant	Q	Q	Q	Q	Q	Q
Partially Vacant	3,438	0.05	34.1	2.5	0.04	0.73
Not At All Vacant	2,963	0.12	77.3	2.2	0.09	0.74
Number of Establishments						
One	2,844	0.12	82.9	2.1	0.09	0.74
2 to 5	2,612	0.10	93.9	1.9	0.08	0.74
6 to 10	4,116	0.04	Q	3.3	0.04	0.81
11 to 20	13,591	0.09	47.7	9.0	0.06	0.66
More than 20	5,139	0.02	8.9	4.3	0.01	0.83
Currently Unoccupied	Q	Q	N	Q	Q	Q
Energy Sources (more than one may apply)						
Electricity	2,980	0.10	66.0	2.2	0.07	0.74
Natural Gas	4,675	0.05	35.0	3.3	0.04	0.70
Fuel Oil	2,983	0.10	66.1	2.2	0.07	0.74
District Heat	Q	Q	Q	3.0	0.01	0.68
District Chilled Water	Q	Q	Q	Q	Q	0.67
Propane	4,538	0.16	149.5	3.4	0.12	0.74
Other	Q	0.12	133.0	Q	0.10	0.86

Table C22. Fuel Oil Consumption and Expenditure Intensities, 1999

	Fuel Oil Consumption			Fuel Oil Expenditures		
	per Building (gallons)	per Square Foot (gallons)	per Worker (gallons)	per Building (thousand dollars)	per Square Foot (dollars)	per Gallon (dollars)
Space-Heating Energy Source						
Fuel Oil	3,299	0.22	189.9	2.4	0.16	0.73
Fuel Oil Main	3,649	0.30	259.6	2.7	0.22	0.73
Fuel Oil Secondary	1,875	0.07	60.7	1.4	0.06	0.77
Other Excluding Fuel Oil	899	0.01	3.9	0.8	0.01	0.89
Buildings without Heating	Q	Q	Q	Q	Q	Q
Primary Space-Heating Energy Source						
Electricity	1,163	0.03	14.9	1.0	0.02	0.90
Natural Gas	1,772	0.02	13.9	1.3	0.01	0.74
Fuel Oil	3,649	0.30	259.6	2.7	0.22	0.73
District Heat	1,250	0.01	2.5	1.1	0.00	0.85
Propane	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q
Cooling Energy Source						
Fuel Oil	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	3,338	0.08	55.3	2.4	0.06	0.73
Buildings without Cooling	1,880	0.23	210.4	1.5	0.18	0.80
Water-Heating Energy Source						
Fuel Oil	6,080	0.30	229.3	4.1	0.20	0.68
Other Excluding Fuel Oil	2,846	0.05	33.7	2.2	0.04	0.78
Buildings without Water Heating	831	0.08	73.3	0.7	0.07	0.88
Cooking Energy Source						
Fuel Oil	Q	Q	Q	Q	Q	Q
Other Excluding Fuel Oil	6,578	0.08	53.8	4.4	0.05	0.66
Buildings without Cooking	1,981	0.12	82.3	1.6	0.10	0.81
Energy End Uses (more than one may apply)						
Buildings with Space Heating	2,991	0.10	66.7	2.2	0.07	0.74
Buildings with Cooling	3,465	0.09	56.9	2.5	0.06	0.72
Buildings with Water Heating	4,078	0.10	65.4	3.0	0.07	0.72
Buildings with Cooking	6,695	0.08	54.4	4.4	0.05	0.66
Buildings with Manufacturing	1,423	0.09	63.8	1.1	0.07	0.78
Buildings with Electricity Generation	4,584	0.04	23.0	3.2	0.03	0.71
Percent of Floorspace Heated						
Not Heated	Q	Q	Q	Q	Q	Q
1 to 50	1,054	0.06	79.0	0.8	0.04	0.76
51 to 99	2,504	0.06	35.1	2.1	0.05	0.84
100	3,469	0.12	75.2	2.5	0.08	0.72
Heating Equipment (more than one may apply)						
Heat Pumps	1,702	0.03	18.2	1.3	0.02	0.77
Furnaces	1,382	0.11	105.2	1.2	0.10	0.89
Individual Space Heaters	1,987	0.05	37.0	1.5	0.04	0.74
District Heat	Q	Q	Q	Q	Q	0.68
Boilers	5,997	0.14	98.5	4.1	0.09	0.69
Packaged Heating Units	4,520	0.04	33.3	3.3	0.03	0.73
Other	1,634	0.04	20.2	1.2	0.03	0.74
Water Heating Equipment						
Centralized System	3,805	0.13	89.2	2.8	0.10	0.73
Distributed System	3,905	0.08	53.3	3.0	0.06	0.77
Combination of Centralized and Distributed System	7,014	0.05	29.6	4.6	0.03	0.66

Table C22. Fuel Oil Consumption and Expenditure Intensities, 1999

	Fuel Oil Consumption			Fuel Oil Expenditures		
	per Building (gallons)	per Square Foot (gallons)	per Worker (gallons)	per Building (thousand dollars)	per Square Foot (dollars)	per Gallon (dollars)
Annual Consumption (gallons)						
1,000 or Less	326	0.01	6.8	0.3	0.01	1.05
1,001 to 5,000	2,106	0.13	85.9	1.8	0.12	0.87
5,001 to 10,000	6,574	0.21	152.8	5.2	0.16	0.79
10,001 to 25,000	15,897	0.21	130.1	10.7	0.14	0.67
Over 25,000	64,440	0.31	260.5	39.7	0.19	0.62

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C23. Fuel Oil Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Fuel Oil Consumption (million gallons)				Total Floorspace of Buildings Using Fuel Oil (million square feet)				Fuel Oil Energy Intensity (gallons/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings	994	34	210	56	5,414	2,423	3,749	1,699	0.18	0.01	0.06	0.03
Building Floorspace (Square Feet)												
1,001 to 10,000	229	Q	77	Q	693	Q	366	Q	0.33	Q	0.21	Q
10,001 to 100,000	430	Q	Q	Q	1,758	526	930	363	0.24	Q	0.07	Q
Over 100,000	335	15	68	Q	2,963	1,815	2,452	1,273	0.11	0.01	0.03	Q
Principal Building Activity												
Education	273	Q	Q	Q	923	Q	301	Q	0.30	Q	0.16	Q
Mercantile and Service	Q	Q	Q	Q	1,065	Q	556	Q	0.18	Q	Q	Q
Office	154	4	51	Q	1,271	749	1,310	584	0.12	0.00	0.04	0.01
Public Assembly	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Warehouse and Storage	38	Q	Q	Q	489	Q	Q	Q	0.08	Q	Q	Q
All Others	255	11	Q	Q	1,229	622	1,227	654	0.21	0.02	0.04	Q
Year Constructed												
1945 or Before	306	Q	Q	Q	1,404	Q	Q	Q	0.22	Q	Q	Q
1946 to 1959	173	Q	Q	Q	969	Q	Q	Q	0.18	Q	Q	Q
1960 to 1969	199	Q	47	Q	877	Q	723	343	0.23	Q	0.06	Q
1970 to 1979	155	Q	Q	4	835	393	795	422	0.19	Q	0.04	0.01
1980 to 1989	104	Q	Q	Q	790	619	1,068	318	0.13	Q	Q	Q
1990 to 1999	57	Q	Q	Q	538	427	763	380	0.11	Q	Q	Q
Climate Zone: 45-Year Average												
Under 2,000 CDD and --												
More than 7,000 HDD	280	Q	N	Q	843	714	N	Q	0.33	0.02	N	Q
5,500-7,000 HDD	418	Q	N	Q	2,289	1,228	N	256	0.18	Q	N	Q
4,000-5,499 HDD	296	Q	158	Q	2,282	480	1,357	412	0.13	Q	0.12	0.10
Fewer than 4,000 HDD	N	N	Q	5	N	N	1,139	764	N	N	Q	0.01
2,000 CDD or More and --												
Fewer than 4,000 HDD	N	N	12	Q	N	N	1,253	Q	N	N	0.01	Q
Workers (main shift)												
Less than 10	228	Q	59	Q	1,085	Q	387	Q	0.21	Q	0.15	Q
10 to 99	480	Q	Q	Q	1,736	567	935	326	0.28	Q	0.08	0.06
100 or More	286	17	75	16	2,593	1,663	2,428	1,278	0.11	0.01	0.03	0.01
Weekly Operating Hours												
48 or fewer	185	Q	59	Q	945	Q	580	Q	0.20	Q	0.10	Q
49 to 84	422	4	65	Q	1,777	723	1,200	520	0.24	0.01	0.05	Q
85 to 168	293	18	Q	Q	1,939	1,003	1,567	745	0.15	0.02	Q	Q
Ownership and Occupancy												
Nongovernment Owned	672	20	158	25	3,789	1,842	2,926	1,336	0.18	0.01	0.05	0.02
Owner Occupied	581	19	134	22	3,284	1,499	2,350	1,152	0.18	0.01	0.06	0.02
Nonowner Occupied	91	Q	Q	Q	503	Q	576	Q	0.18	Q	Q	Q
Unoccupied	Q	N	Q	N	Q	N	Q	N	Q	N	Q	N
Government Owned	322	Q	Q	Q	1,625	581	823	363	0.20	Q	0.06	Q
Federal	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
State	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Local	278	Q	Q	Q	954	Q	480	Q	0.29	Q	0.09	Q
Vacancy Status												
Completely Vacant	N	N	N	N	N	N	N	N	N	N	N	N
Mostly Vacant	Q	N	N	Q	Q	N	N	Q	Q	N	N	Q
Partially Vacant	150	3	15	Q	1,273	541	1,159	555	0.12	0.00	0.01	Q
Not At All Vacant	838	32	195	49	4,029	1,881	2,590	1,138	0.21	0.02	0.08	0.04

Table C23. Fuel Oil Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Fuel Oil Consumption (million gallons)				Total Floorspace of Buildings Using Fuel Oil (million square feet)				Fuel Oil Energy Intensity (gallons/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Number of Establishments												
One	737	29	169	49	3,512	1,621	2,211	982	0.21	0.02	0.08	0.05
2 to 5	148	Q	Q	Q	715	Q	545	224	0.21	Q	Q	Q
6 to 10	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
11 to 20	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
More than 20	Q	Q	Q	1	691	Q	578	317	0.04	Q	Q	0.00
Currently Unoccupied	Q	N	Q	N	Q	N	Q	N	Q	N	Q	N
Energy Sources (more than one may apply)												
Electricity	991	34	210	56	5,406	2,423	3,749	1,699	0.18	0.01	0.06	0.03
Natural Gas	303	20	79	Q	2,569	1,945	2,269	1,306	0.12	0.01	0.03	Q
Fuel Oil	994	34	210	56	5,414	2,423	3,749	1,699	0.18	0.01	0.06	0.03
District Heat	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
District Chilled Water	Q	Q	1	Q	Q	Q	276	Q	Q	Q	0.00	Q
Propane	276	Q	Q	Q	1,076	Q	604	Q	0.26	Q	0.12	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Space-Heating Energy Source												
Fuel Oil	980	26	191	Q	3,612	619	1,128	252	0.27	0.04	0.17	0.18
Fuel Oil Main	882	Q	167	Q	2,803	Q	718	Q	0.31	Q	0.23	Q
Fuel Oil Secondary	98	15	23	Q	809	579	410	Q	0.12	0.03	0.06	Q
Other Excluding Fuel Oil	13	8	17	11	1,802	1,804	2,444	1,414	0.01	0.00	0.01	0.01
Buildings without Heating	N	N	Q	Q	N	N	Q	Q	N	N	Q	Q
Primary Space-Heating Energy Source												
Electricity	Q	Q	Q	Q	556	Q	1,368	335	Q	Q	0.01	Q
Natural Gas	50	19	20	7	1,111	1,611	1,180	949	0.04	0.01	0.02	0.01
Fuel Oil	882	Q	167	Q	2,803	Q	718	Q	0.31	Q	0.23	Q
District Heat	4	Q	2	Q	791	Q	278	Q	0.00	Q	0.01	Q
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.32
Other	Q	Q	N	N	Q	Q	N	N	Q	Q	N	N
Cooling Energy Source												
Fuel Oil	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
Other Excluding Fuel Oil	766	30	187	Q	4,507	2,362	3,604	1,585	0.17	0.01	0.05	Q
Buildings without Cooling	188	Q	Q	Q	806	Q	Q	Q	0.23	Q	Q	Q
Water-Heating Energy Source												
Fuel Oil	569	Q	Q	Q	1,678	Q	Q	Q	0.34	Q	0.19	Q
Other Excluding Fuel Oil	336	20	117	33	3,065	2,061	3,060	1,448	0.11	0.01	0.04	0.02
Buildings without Water Heating	88	Q	Q	Q	671	Q	362	Q	0.13	Q	0.08	Q
Cooking Energy Source												
Fuel Oil	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
Other Excluding Fuel Oil	453	20	Q	Q	2,974	1,330	2,353	1,100	0.15	0.02	0.04	0.02
Buildings without Cooking	529	14	104	30	2,412	1,076	1,357	600	0.22	0.01	0.08	0.05
Energy End Uses (more than one may apply)												
Buildings with Space Heating	994	34	208	56	5,414	2,423	3,572	1,665	0.18	0.01	0.06	0.03
Buildings with Cooling	805	30	188	Q	4,608	2,364	3,628	1,585	0.17	0.01	0.05	Q
Buildings with Water Heating	906	33	181	53	4,743	2,173	3,388	1,548	0.19	0.02	0.05	0.03
Buildings with Cooking	464	21	Q	Q	3,002	1,346	2,392	1,100	0.15	0.02	0.04	0.02
Buildings with Manufacturing	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Buildings with Electricity Generation	252	14	Q	Q	2,547	1,874	2,871	1,457	0.10	0.01	0.02	Q

Table C23. Fuel Oil Consumption and Conditional Energy Intensity by Census Region, 1999

	Total Fuel Oil Consumption (million gallons)				Total Floorspace of Buildings Using Fuel Oil (million square feet)				Fuel Oil Energy Intensity (gallons/square foot)			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Percent of Floorspace Heated												
Not Heated	N	N	Q	Q	N	N	Q	Q	N	N	Q	Q
1 to 50	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
51 to 99	90	Q	53	Q	776	Q	1,083	460	0.12	Q	0.05	Q
100	850	32	148	Q	4,194	2,055	2,292	835	0.20	0.02	0.06	Q
Heating Equipment (more than one may apply)												
Heat Pumps	37	Q	Q	Q	636	Q	893	359	0.06	Q	Q	0.01
Furnaces	165	Q	Q	Q	913	Q	578	Q	0.18	Q	Q	Q
Individual Space Heaters	166	Q	48	Q	1,630	1,019	1,234	468	0.10	0.01	0.04	Q
District Heat	Q	Q	2	Q	852	Q	341	253	Q	Q	0.01	Q
Boilers	818	28	142	Q	3,485	1,419	1,594	987	0.23	0.02	0.09	0.03
Packaged Heating Units	132	5	37	Q	1,351	869	1,405	612	0.10	0.01	0.03	Q
Other	34	Q	Q	Q	398	Q	535	Q	0.09	Q	Q	Q
Water Heating Equipment												
Centralized System	645	22	158	Q	2,609	1,131	2,013	780	0.25	0.02	0.08	Q
Distributed System	125	Q	Q	Q	874	Q	474	Q	0.14	Q	0.03	Q
Combination of Centralized and Distributed System	136	9	9	Q	1,259	723	900	565	0.11	0.01	0.01	0.02
Annual Consumption (gallons)												
1,000 or Less	43	6	21	Q	2,009	1,701	2,457	1,213	0.02	0.00	0.01	0.00
1,001 to 5,000	219	6	76	20	1,087	365	700	266	0.20	0.02	0.11	0.07
5,001 to 10,000	155	Q	Q	Q	481	Q	Q	Q	0.32	Q	Q	Q
10,001 to 25,000	138	Q	46	Q	502	Q	289	Q	0.27	Q	0.16	Q
Over 25,000	439	Q	Q	Q	1,334	Q	Q	Q	0.33	Q	Q	Q

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C24. Fuel Oil Expenditures by Census Region, 1999

	Total Fuel Oil Expenditures (million dollars)				Fuel Oil Expenditures (dollars) per Gallon				Fuel Oil Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
All Buildings	704	27	180	45	0.71	0.79	0.86	0.80	0.13	0.01	0.05	0.03
Building Floorspace (Square Feet)												
1,001 to 10,000	196	Q	75	Q	0.86	Q	0.98	Q	0.28	Q	0.20	Q
10,001 to 100,000	313	Q	Q	Q	0.73	0.76	0.74	0.75	0.18	Q	0.05	Q
Over 100,000	196	12	56	Q	0.59	0.75	0.82	0.72	0.07	0.01	0.02	0.01
Principal Building Activity												
Education	164	Q	Q	Q	0.60	Q	0.59	Q	0.18	Q	0.09	Q
Mercantile and Service	Q	Q	Q	Q	0.81	Q	0.93	Q	0.15	Q	Q	Q
Office	113	3	47	Q	0.74	0.94	0.93	0.88	0.09	0.00	0.04	0.01
Public Assembly	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Warehouse and Storage	28	Q	Q	Q	0.74	Q	Q	Q	0.06	Q	Q	Q
All Others	182	9	Q	Q	0.72	0.76	0.83	0.87	0.15	0.01	0.04	Q
Year Constructed												
1945 or Before	228	Q	Q	Q	0.74	Q	Q	Q	0.16	Q	Q	Q
1946 to 1959	130	Q	Q	Q	0.75	Q	Q	Q	0.13	Q	Q	Q
1960 to 1969	143	Q	34	Q	0.72	Q	0.73	Q	0.16	Q	0.05	Q
1970 to 1979	95	Q	Q	4	Q	0.66	0.71	0.93	0.11	Q	0.03	0.01
1980 to 1989	Q	Q	Q	Q	0.73	0.80	0.79	0.82	0.10	Q	Q	Q
1990 to 1999	34	Q	Q	Q	0.60	0.99	1.21	0.80	0.06	Q	Q	Q
Climate Zone: 45-Year Average												
Under 2,000 CDD and --												
More than 7,000 HDD	196	Q	N	Q	0.70	0.83	N	Q	0.23	Q	N	Q
5,500-7,000 HDD	299	13	N	Q	0.72	0.73	N	0.80	0.13	0.01	N	Q
4,000-5,499 HDD	209	Q	125	Q	0.71	Q	0.79	0.75	0.09	Q	0.09	Q
Fewer than 4,000 HDD	N	N	Q	5	N	N	1.05	0.99	N	N	Q	0.01
2,000 CDD or More and --												
Fewer than 4,000 HDD	N	N	13	Q	N	N	1.03	Q	N	N	0.01	Q
Workers (main shift)												
Less than 10	197	Q	58	Q	0.86	Q	0.99	Q	0.18	Q	0.15	Q
10 to 99	339	Q	Q	Q	0.71	0.73	0.81	0.61	0.20	0.02	0.07	0.03
100 or More	169	13	60	14	0.59	0.76	0.80	0.87	0.07	0.01	0.02	0.01
Weekly Operating Hours												
48 or fewer	136	Q	48	Q	0.74	Q	0.80	Q	0.14	Q	0.08	Q
49 to 84	311	4	51	Q	0.74	1.05	0.79	0.66	0.18	0.01	0.04	Q
85 to 168	193	14	Q	Q	0.66	0.74	0.79	0.79	0.10	0.01	Q	Q
Ownership and Occupancy												
Nongovernment Owned	507	17	148	21	0.75	0.86	0.94	0.84	0.13	0.01	0.05	0.02
Owner Occupied	432	16	125	19	0.74	0.85	0.93	0.83	0.13	0.01	0.05	0.02
Nonowner Occupied	75	Q	Q	Q	Q	Q	0.98	Q	0.15	Q	Q	Q
Unoccupied	Q	N	Q	N	Q	N	Q	N	Q	N	Q	N
Government Owned	198	Q	Q	Q	0.61	0.69	0.61	0.77	0.12	Q	0.04	0.07
Federal	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
State	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Local	169	Q	Q	Q	0.61	Q	0.58	Q	0.18	Q	0.05	Q
Vacancy Status												
Completely Vacant	N	N	N	N	N	N	N	N	N	N	N	N
Mostly Vacant	Q	N	N	Q	Q	N	N	Q	Q	N	N	Q
Partially Vacant	106	2	15	Q	0.71	0.88	0.96	0.66	0.08	0.00	0.01	Q
Not At All Vacant	594	25	165	Q	0.71	0.78	0.85	0.82	0.15	0.01	0.06	0.03

Table C24. Fuel Oil Expenditures by Census Region, 1999

	Total Fuel Oil Expenditures (million dollars)				Fuel Oil Expenditures (dollars) per Gallon				Fuel Oil Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Number of Establishments												
One	522	23	143	39	0.71	0.78	0.85	0.80	0.15	0.01	0.06	0.04
2 to 5	103	Q	Q	Q	0.70	Q	0.93	Q	0.14	Q	Q	Q
6 to 10	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
11 to 20	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
More than 20	Q	Q	Q	1	0.83	Q	0.84	0.96	0.03	Q	Q	0.00
Currently Unoccupied	Q	N	Q	N	Q	N	Q	N	Q	N	Q	N
Energy Sources (more than one may apply)												
Electricity	702	27	180	45	0.71	0.79	0.86	0.80	0.13	0.01	0.05	0.03
Natural Gas	194	17	70	Q	0.64	0.85	0.88	0.70	0.08	0.01	0.03	0.01
Fuel Oil	704	27	180	45	0.71	0.79	0.86	0.80	0.13	0.01	0.05	0.03
District Heat	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
District Chilled Water	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Propane	195	Q	Q	Q	0.71	Q	0.90	Q	0.18	Q	0.10	Q
Other	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Space-Heating Energy Source												
Fuel Oil	694	19	163	Q	0.71	0.73	0.85	0.75	0.19	0.03	0.14	0.13
Fuel Oil Main	621	Q	143	Q	0.70	Q	0.85	Q	0.22	Q	0.20	Q
Fuel Oil Secondary	73	12	20	Q	0.75	0.80	0.85	Q	0.09	0.02	0.05	Q
Other Excluding Fuel Oil	10	8	15	11	0.78	0.97	0.89	0.97	0.01	0.00	0.01	0.01
Buildings without Heating	N	N	Q	Q	N	N	Q	Q	N	N	Q	Q
Primary Space-Heating Energy Source												
Electricity	Q	Q	Q	Q	0.88	Q	0.95	0.90	Q	Q	0.01	Q
Natural Gas	31	16	16	7	0.63	0.85	0.81	1.02	0.03	0.01	0.01	0.01
Fuel Oil	621	Q	143	Q	0.70	Q	0.85	Q	0.22	Q	0.20	Q
District Heat	3	Q	Q	Q	0.89	Q	Q	Q	0.00	Q	Q	Q
Propane	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	0.26
Other	Q	Q	N	N	Q	Q	N	N	Q	Q	N	N
Cooling Energy Source												
Fuel Oil	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
Other Excluding Fuel Oil	530	23	159	Q	0.69	0.78	0.85	0.88	0.12	0.01	0.04	Q
Buildings without Cooling	150	Q	Q	Q	0.80	Q	Q	Q	0.19	Q	Q	Q
Water-Heating Energy Source												
Fuel Oil	386	Q	Q	Q	0.68	Q	0.73	Q	0.23	Q	0.14	Q
Other Excluding Fuel Oil	244	17	105	28	0.73	0.86	0.90	0.86	0.08	0.01	0.03	0.02
Buildings without Water Heating	74	Q	Q	Q	0.84	Q	0.95	Q	0.11	Q	0.08	Q
Cooking Energy Source												
Fuel Oil	Q	Q	Q	N	Q	Q	Q	N	Q	Q	Q	N
Other Excluding Fuel Oil	294	14	Q	Q	0.65	0.72	0.71	0.70	0.10	0.01	0.03	0.02
Buildings without Cooking	405	12	104	26	0.76	0.89	1.00	0.88	0.17	0.01	0.08	0.04
Energy End Uses (more than one may apply)												
Buildings with Space Heating	704	27	178	44	0.71	0.79	0.86	0.80	0.13	0.01	0.05	0.03
Buildings with Cooling	555	23	159	Q	0.69	0.78	0.85	0.88	0.12	0.01	0.04	Q
Buildings with Water Heating	630	26	152	42	0.70	0.77	0.84	0.78	0.13	0.01	0.04	0.03
Buildings with Cooking	299	15	Q	Q	0.65	0.72	0.71	0.70	0.10	0.01	0.03	0.02
Buildings with Manufacturing	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Buildings with Electricity Generation	159	12	Q	Q	0.63	0.83	0.93	0.88	0.06	0.01	Q	Q

Table C24. Fuel Oil Expenditures by Census Region, 1999

	Total Fuel Oil Expenditures (million dollars)				Fuel Oil Expenditures (dollars) per Gallon				Fuel Oil Expenditures (dollars) per Square Foot			
	North-east	Mid-west	South	West	North-east	Mid-west	South	West	North-east	Mid-west	South	West
Percent of Floorspace Heated												
Not Heated	N	N	Q	Q	N	N	Q	Q	N	N	Q	Q
1 to 50	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
51 to 99	69	Q	Q	Q	0.77	Q	0.96	0.89	0.09	Q	Q	Q
100	597	24	122	Q	0.70	0.75	0.82	0.77	0.14	0.01	0.05	0.04
Heating Equipment (more than one may apply)												
Heat Pumps	23	Q	Q	Q	0.63	Q	0.94	1.21	0.04	Q	Q	Q
Furnaces	136	Q	Q	Q	0.82	Q	1.14	Q	0.15	Q	Q	Q
Individual Space Heaters	Q	7	Q	Q	0.70	0.86	0.86	0.79	0.07	0.01	0.03	Q
District Heat	Q	Q	2	Q	0.66	Q	0.74	Q	Q	Q	0.00	Q
Boilers	554	20	107	23	0.68	0.72	0.76	0.71	0.16	0.01	0.07	0.02
Packaged Heating Units	84	4	Q	6	0.64	0.88	1.02	0.97	0.06	0.00	Q	0.01
Other	23	Q	Q	Q	0.68	Q	0.75	Q	0.06	Q	Q	Q
Water Heating Equipment												
Centralized System	450	17	132	Q	0.70	0.77	0.84	0.78	0.17	0.02	0.07	Q
Distributed System	Q	Q	Q	Q	0.75	Q	0.90	Q	0.11	Q	Q	Q
Combination of Centralized and Distributed System	86	7	7	7	0.64	0.76	0.81	0.73	0.07	0.01	0.01	0.01
Annual Consumption (gallons)												
1,000 or Less	43	7	23	7	0.99	1.24	1.11	1.13	0.02	0.00	0.01	0.01
1,001 to 5,000	186	6	71	18	0.85	0.87	0.94	0.90	0.17	0.02	0.10	0.07
5,001 to 10,000	121	Q	Q	Q	0.78	Q	Q	Q	0.25	Q	Q	Q
10,001 to 25,000	95	Q	Q	Q	0.69	Q	Q	Q	0.19	Q	Q	Q
Over 25,000	260	Q	Q	Q	0.59	Q	Q	Q	0.19	Q	Q	Q

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C25. Total District Heat Consumption and Expenditures, 1999

	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
All Buildings	117	5891	50	433	3564
Building Floorspace (Square Feet)					
1,001 to 5,000	Q	Q	Q	Q	Q
5,001 to 10,000	Q	Q	Q	Q	Q
10,001 to 25,000	Q	Q	Q	Q	Q
25,001 to 50,000	19	660	35	61	496
50,001 to 100,000	13	933	72	97	667
100,001 to 200,000	7	903	133	72	598
200,001 to 500,000	3	1,003	314	57	504
Over 500,000	2	1,707	964	84	775
Principal Building Activity					
Education	37	1,159	31	117	879
Food Sales	0	12	25	2	19
Food Service	Q	Q	Q	Q	Q
Health Care	3	744	217	46	Q
Inpatient	Q	Q	Q	Q	Q
Outpatient	Q	Q	Q	Q	Q
Lodging	18	629	34	68	482
Mercantile	Q	Q	Q	Q	Q
Retail (Other Than Mall)	Q	Q	Q	Q	Q
Office	Q	1,536	76	74	709
Public Assembly	Q	848	55	59	487
Public Order and Safety	Q	Q	Q	Q	Q
Religious Worship	1	21	20	1	12
Service	Q	Q	Q	Q	Q
Warehouse and Storage	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q
Vacant	0	11	67	0	2
Year Constructed					
1919 or Before	Q	486	25	Q	268
1920 to 1945	9	764	82	60	535
1946 to 1959	21	1,088	52	76	652
1960 to 1969	18	1,406	78	100	815
1970 to 1979	19	788	41	69	538
1980 to 1989	Q	682	Q	47	Q
1990 to 1999	15	677	46	Q	Q
Census Region and Division					
Northeast	Q	1,898	61	136	1,264
New England	Q	Q	Q	Q	Q
Middle Atlantic	Q	1,718	59	121	1,154
Midwest	Q	1,521	61	132	1,021
East North Central	Q	799	71	80	618
West North Central	Q	722	53	52	Q
South	39	1,265	32	67	554
South Atlantic	Q	Q	Q	Q	Q
East South Central	Q	Q	Q	Q	Q
West South Central	Q	Q	Q	Q	Q
West	22	1,207	Q	98	724
Mountain	9	Q	Q	Q	Q
Pacific	Q	Q	Q	Q	Q

Table C25. Total District Heat Consumption and Expenditures, 1999

	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
Climate Zone: 45-Year Average					
Under 2,000 CDD and --					
More than 7,000 HDD	Q	Q	Q	Q	Q
5,500-7,000 HDD	22	1,743	78	160	1,219
4,000-5,499 HDD	Q	2,443	54	166	1,492
Fewer than 4,000 HDD	14	875	63	34	314
2,000 CDD or More and --					
Fewer than 4,000 HDD	Q	Q	Q	Q	Q
Workers (main shift)					
Fewer than 5	Q	Q	Q	Q	Q
5 to 9	Q	Q	Q	Q	Q
10 to 19	Q	Q	Q	Q	Q
20 to 49	12	544	Q	45	Q
50 to 99	19	696	37	57	485
100 to 249	9	1,052	123	79	671
250 or More	7	2,431	346	138	1,185
Weekly Operating Hours					
39 or Fewer	1	38	27	3	29
40 to 48	Q	796	20	55	Q
49 to 60	Q	945	52	57	466
61 to 84	17	943	54	73	605
85 to 167	14	915	66	73	516
Open Continuously	26	2,254	87	173	1,449
Ownership and Occupancy					
Nongovernment Owned	67	3,333	50	250	2,110
Owner Occupied	53	2,907	55	226	1,848
Nonowner Occupied	Q	Q	Q	Q	Q
Unoccupied	N	N	N	N	N
Government Owned	50	2,559	51	184	1,454
Federal	Q	827	73	55	336
State	20	1,187	60	96	828
Local	Q	Q	Q	Q	Q
Vacancy Status					
Completely Vacant	N	N	N	N	N
Mostly Vacant	0	11	67	0	2
Partially Vacant	Q	1,311	57	71	737
Not At All Vacant	94	4,570	48	362	2,824
Number of Establishments					
One	101	4,149	41	347	2,680
2 to 5	7	559	83	33	Q
6 to 10	Q	Q	Q	Q	Q
11 to 20	Q	Q	Q	Q	Q
More than 20	1	681	517	33	379
Energy Sources (more than one may apply)					
Electricity	117	5,891	50	433	3,564
Natural Gas	Q	2,683	51	182	1,461
Fuel Oil	8	1,839	Q	107	948
District Heat	117	5,891	50	433	3,564
District Chilled Water	43	2,354	54	185	1,349
Propane	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q

Table C25. Total District Heat Consumption and Expenditures, 1999

	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
Space-Heating Energy Source					
District Heat	96	5,534	58	412	3,371
District Heat Main	77	5,077	66	402	3,277
District Heat Secondary	Q	Q	Q	Q	Q
Other Excluding District Heat	Q	Q	Q	Q	Q
Buildings without Heating	Q	Q	Q	Q	Q
Primary Space-Heating Energy Source					
Electricity	Q	Q	Q	Q	Q
Natural Gas	Q	Q	Q	Q	Q
Fuel Oil	1	28	54	1	6
District Heat	77	5,077	66	402	3,277
Propane	N	N	N	N	N
Other	N	N	N	N	N
Cooling Energy Source					
District Heat	Q	Q	Q	Q	Q
Other Excluding District Heat	96	4,691	49	337	2,703
Buildings without Cooling	Q	726	36	Q	Q
Water-Heating Energy Source					
District Heat	32	3,195	99	253	2,186
Other Excluding District Heat	Q	1,119	28	50	Q
Buildings without Water Heating	Q	Q	Q	Q	Q
Cooking Energy Source					
District Heat	Q	Q	Q	Q	Q
Other Excluding District Heat	21	1,690	79	98	843
Buildings without Cooking	87	3,236	37	268	2,167
Energy End Uses (more than one may apply)					
Buildings with Space Heating	116	5,862	51	431	3,556
Buildings with Cooling	97	5,165	53	369	3,028
Buildings with Water Heating	101	5,301	52	392	3,283
Buildings with Cooking	28	2,487	88	149	1,279
Buildings with Manufacturing	Q	Q	Q	Q	Q
Buildings with Electricity Generation	15	2,083	137	139	1,159
Percent of Floorspace Heated					
Not Heated	Q	Q	Q	Q	Q
1 to 50	Q	Q	Q	Q	Q
51 to 99	Q	986	46	57	534
100	90	4,708	52	371	2,990
Heating Equipment (more than one may apply)					
Heat Pumps	Q	Q	Q	Q	Q
Furnaces	Q	Q	Q	Q	Q
Individual Space Heaters	12	1,314	112	79	697
District Heat	96	5,534	58	412	3,371
Boilers	Q	Q	Q	Q	Q
Packaged Heating Units	20	847	42	49	459
Other	Q	Q	Q	Q	Q

Table C25. Total District Heat Consumption and Expenditures, 1999

	All Buildings Using District Heat			District Heat Consumption	District Heat Expenditures
	Number of Buildings (thousand)	Floorspace (million square feet)	Floorspace per Building (thousand square feet)	Total (trillion Btu)	Total (million dollars)
Water Heating Equipment					
Centralized System	84	3,464	41	279	2,261
Distributed System	Q	Q	Q	Q	Q
Combination of Centralized and Distributed System	11	1,142	102	72	665

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.

Table C26. District Heat Consumption and Expenditure Intensities, 1999

	District Heat Consumption			District Heat Expenditures		
	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pounds (dollars)
All Buildings	3,692	73.55	50.1	30.4	0.60	8.22
Building Floorspace (Square Feet)						
1,001 to 5,000	Q	Q	Q	Q	Q	Q
5,001 to 10,000	Q	Q	Q	Q	Q	Q
10,001 to 25,000	Q	Q	Q	Q	Q	Q
25,001 to 50,000	3,272	92.85	129.6	26.5	0.75	8.10
50,001 to 100,000	7,466	104.03	84.9	51.3	0.72	6.87
100,001 to 200,000	10,653	79.80	52.2	88.3	0.66	8.29
200,001 to 500,000	17,898	57.03	33.8	157.7	0.50	8.81
Over 500,000	47,449	49.20	30.8	437.9	0.45	9.23
Principal Building Activity						
Education	3,151	100.60	87.3	23.8	0.76	7.54
Food Sales	4,155	166.20	166.2	39.2	1.57	9.43
Food Service	Q	Q	Q	Q	Q	Q
Health Care	13,465	62.10	35.4	Q	Q	Q
Inpatient	Q	Q	Q	Q	Q	Q
Outpatient	Q	Q	Q	Q	Q	Q
Lodging	3,658	107.51	Q	26.0	0.77	7.12
Mercantile	Q	Q	Q	Q	Q	Q
Retail (Other Than Mall)	Q	Q	Q	Q	Q	Q
Office	3,655	48.15	18.6	35.1	0.46	9.59
Public Assembly	3,853	69.86	147.9	Q	0.57	8.21
Public Order and Safety	Q	Q	Q	Q	Q	Q
Religious Worship	1,106	55.82	226.8	11.1	0.56	10.06
Service	Q	Q	Q	Q	Q	Q
Warehouse and Storage	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q
Vacant	1,532	22.74	136.7	14.7	0.22	9.58
Year Constructed						
1919 or Before	1,899	76.33	51.1	13.7	0.55	7.22
1920 to 1945	6,475	Q	Q	57.8	0.70	8.92
1946 to 1959	3,653	70.06	45.0	31.3	0.60	8.55
1960 to 1969	5,547	70.90	49.3	45.4	0.58	8.18
1970 to 1979	3,619	87.44	49.1	28.3	0.68	7.81
1980 to 1989	Q	68.93	36.3	Q	Q	Q
1990 to 1999	Q	Q	Q	Q	Q	Q
Census Region and Division						
Northeast	4,371	71.91	44.8	40.5	0.67	9.26
New England	Q	Q	Q	Q	Q	Q
Middle Atlantic	4,127	70.49	43.0	39.3	0.67	9.53
Midwest	5,291	87.08	71.2	40.8	0.67	7.71
East North Central	Q	100.48	90.3	Q	0.77	7.70
West North Central	3,806	72.25	53.8	Q	0.56	7.74
South	1,708	52.66	38.4	14.2	0.44	8.32
South Atlantic	Q	Q	Q	Q	Q	Q
East South Central	Q	Q	Q	Q	Q	Q
West South Central	Q	Q	Q	Q	Q	Q
West	Q	80.99	48.6	Q	0.60	7.40
Mountain	Q	85.64	Q	Q	0.55	6.43
Pacific	Q	Q	Q	Q	Q	Q

Table C26. District Heat Consumption and Expenditure Intensities, 1999

	District Heat Consumption			District Heat Expenditures		
	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pounds (dollars)
Climate Zone: 45-Year Average						
Under 2,000 CDD and --						
More than 7,000 HDD	Q	Q	Q	Q	Q	Q
5,500-7,000 HDD	7,163	91.65	85.0	54.7	0.70	7.63
4,000-5,499 HDD	3,641	67.90	40.0	32.8	0.61	9.00
Fewer than 4,000 HDD	2,412	38.49	26.6	22.5	0.36	9.33
2,000 CDD or More and --						
Fewer than 4,000 HDD	Q	Q	Q	Q	Q	Q
Workers (main shift)						
Fewer than 5	Q	Q	Q	Q	Q	Q
5 to 9	Q	Q	Q	Q	Q	Q
10 to 19	Q	Q	Q	Q	Q	Q
20 to 49	Q	83.09	Q	Q	Q	Q
50 to 99	3,023	82.51	49.9	25.5	0.70	8.44
100 to 249	9,155	74.70	64.3	78.2	0.64	8.54
250 or More	19,617	56.62	24.7	168.9	0.49	8.61
Weekly Operating Hours						
39 or Fewer	2,044	74.33	297.6	20.8	0.76	10.20
40 to 48	1,356	69.11	55.6	Q	Q	Q
49 to 60	3,114	59.93	25.6	25.6	0.49	8.23
61 to 84	4,179	77.06	44.8	34.8	0.64	8.33
85 to 167	5,264	80.08	67.6	37.0	0.56	7.04
Open Continuously	6,666	76.70	63.0	55.9	0.64	8.38
Ownership and Occupancy						
Nongovernment Owned	3,709	74.91	47.0	31.3	0.63	8.45
Owner Occupied	4,266	77.84	51.1	34.8	0.64	8.17
Nonowner Occupied	Q	Q	Q	Q	Q	Q
Unoccupied	N	N	N	N	N	N
Government Owned	3,668	71.78	54.9	29.0	0.57	7.92
Federal	4,826	66.48	35.1	29.5	0.41	6.12
State	4,813	80.51	90.4	41.7	0.70	8.67
Local	Q	Q	Q	Q	Q	Q
Vacancy Status						
Completely Vacant	N	N	N	N	N	N
Mostly Vacant	1,532	22.74	136.7	14.7	0.22	9.58
Partially Vacant	3,104	54.03	34.0	32.3	0.56	10.41
Not At All Vacant	3,837	79.27	55.1	29.9	0.62	7.80
Number of Establishments						
One	3,448	83.73	65.5	26.6	0.65	7.71
2 to 5	4,928	59.66	42.8	Q	Q	Q
6 to 10	Q	Q	Q	Q	Q	Q
11 to 20	Q	Q	Q	Q	Q	Q
More than 20	24,895	48.20	24.5	287.4	0.56	11.54
Energy Sources (more than one may apply)						
Electricity	3,692	73.55	50.1	30.4	0.60	8.22
Natural Gas	3,479	67.90	43.3	27.9	0.54	8.02
Fuel Oil	13,995	58.04	29.9	124.3	0.52	8.88
District Heat	3,692	73.55	50.1	30.4	0.60	8.22
District Chilled Water	4,272	78.43	47.3	31.2	0.57	7.30
Propane	Q	Q	Q	Q	Q	Q
Other	Q	Q	Q	Q	Q	Q

Table C26. District Heat Consumption and Expenditure Intensities, 1999

	District Heat Consumption			District Heat Expenditures		
	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pounds (dollars)
Space-Heating Energy Source						
District Heat	4,294	74.45	50.8	35.1	0.61	8.18
District Heat Main	5,233	79.25	57.4	42.6	0.65	8.14
District Heat Secondary	Q	Q	Q	Q	Q	Q
Other Excluding District Heat	Q	Q	Q	Q	Q	Q
Buildings without Heating	Q	Q	Q	Q	Q	Q
Primary Space-Heating Energy Source						
Electricity	Q	Q	Q	Q	Q	Q
Natural Gas	Q	Q	Q	Q	Q	Q
Fuel Oil	1,282	23.55	25.1	12.1	0.22	9.47
District Heat	5,233	79.25	57.4	42.6	0.65	8.14
Propane	N	N	N	N	N	N
Other	N	N	N	N	N	N
Cooling Energy Source						
District Heat	Q	Q	Q	Q	Q	Q
Other Excluding District Heat	3,510	71.86	46.0	28.2	0.58	8.02
Buildings without Cooling	Q	88.92	258.7	Q	Q	Q
Water-Heating Energy Source						
District Heat	7,788	79.07	55.0	67.4	0.68	8.65
Other Excluding District Heat	1,279	44.98	27.0	10.6	0.37	8.25
Buildings without Water Heating	Q	Q	Q	Q	Q	Q
Cooking Energy Source						
District Heat	Q	Q	Q	Q	Q	Q
Other Excluding District Heat	4,577	58.01	43.5	39.4	0.50	8.60
Buildings without Cooking	3,090	82.70	56.9	25.0	0.67	8.10
Energy End Uses (more than one may apply)						
Buildings with Space Heating	3,718	73.53	50.2	30.7	0.61	8.25
Buildings with Cooling	3,789	71.39	43.9	31.1	0.59	8.21
Buildings with Water Heating	3,865	73.87	50.6	32.4	0.62	8.38
Buildings with Cooking	5,288	59.81	35.9	45.5	0.51	8.60
Buildings with Manufacturing	Q	Q	Q	Q	Q	Q
Buildings with Electricity Generation	9,187	66.82	36.6	76.5	0.56	8.33
Percent of Floorspace Heated						
Not Heated	Q	Q	Q	Q	Q	Q
1 to 50	Q	Q	Q	Q	Q	Q
51 to 99	2,639	57.77	38.4	24.8	0.54	9.38
100	4,130	78.77	53.1	33.3	0.64	8.06
Heating Equipment (more than one may apply)						
Heat Pumps	Q	Q	Q	Q	Q	Q
Furnaces	Q	Q	Q	Q	Q	Q
Individual Space Heaters	6,747	60.15	32.3	59.5	0.53	8.81
District Heat	4,294	74.45	50.8	35.1	0.61	8.18
Boilers	Q	Q	Q	Q	Q	Q
Packaged Heating Units	2,407	57.50	45.1	22.7	0.54	9.42
Other	Q	Q	Q	Q	Q	Q

Table C26. District Heat Consumption and Expenditure Intensities, 1999

	District Heat Consumption			District Heat Expenditures		
	per Building (million Btu)	per Square Foot (thousand Btu)	per Worker (million Btu)	per Building (thousand dollars)	per Square Foot (dollars)	per Thousand Pounds (dollars)
Water Heating Equipment						
Centralized System	3,343	80.61	58.3	27.1	0.65	8.10
Distributed System	Q	Q	Q	Q	Q	Q
Combination of Centralized and Distributed System	6,437	63.28	34.4	59.2	0.58	9.20

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled.
N=No responding cases in sample.
Notes: * Statistics for the "energy end uses" represent consumption in buildings that have the end use, not consumption for a particular fuel for a particular end use. * Due to rounding, data may not sum to totals.
Source: Energy Information Administration, Office of Energy Markets and End Use, Form EIA-871A of the 1999 Commercial Buildings Energy Consumption Survey.